LEGISLATION TO MAKE CARS IN AMERICA SAFER

HEARING

BEFORE THE

SUBCOMMITTEE ON CONSUMER PROTECTION AND COMMERCE

OF THE

COMMITTEE ON ENERGY AND COMMERCE
HOUSE OF REPRESENTATIVES

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[1] The information has been retained in committee files and also is available as part of Ms. Chase's statement at https://docs.house.gov/meetings/IF/IF17/20190724/109842/HHRG-116-IF17-Wstate-ChaseC-20190724.pdf.

LEGISLATION TO MAKE CARS IN AMERICA SAFER

WEDNESDAY, JULY 24, 2019

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON CONSUMER PROTECTION AND COMMERCE,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 10:26 a.m., in room 2322, Rayburn House Office Building, Hon. Jan Schakowsky (chairwoman of the subcommittee) presiding.

Members present: Representatives Schakowsky, Castor, Kelly, O'Halleran, Blunt Rochester, Soto, Rush, Matsui, McNerney, Dingell, Pallone (ex officio), Rodgers (subcommittee ranking member), Burgess, Latta, Guthrie, Bucshon, Hudson, Carter, and Walden (ex officio).

Staff present: Billy Benjamin, Systems Administrator; Jeffrey C. Carroll, Staff Director; Evan Gilbert, Deputy Press Secretary; Lisa Goldman, Senior Counsel; Waverly Gordon, Deputy Chief Counsel; Daniel Greene, Professional Staff Member; Alex Hoehn-Saric, Chief Counsel, Communications and Consumer Protection; Joe Orlando, Staff Assistant; Alivia Roberts, Press Assistant; Tim Robinson, Chief Counsel; Chloe Rodriguez, Policy Analyst; Rebecca Tomilchik, Staff Assistant; Justin Discigil, Minority Press Secretary; Margaret Tucker Fogarty, Minority Staff Assistant; and Bijan Koohmaraie, Minority Counsel, Consumer Protection and Commerce.

Ms. SCHAKOWSKY. The Subcommittee on Consumer Protection and Commerce will now come to order. The Chair now recognizes herself for 5 minutes for an opening statement.

OPENING STATEMENT OF HON. JAN SCHAKOWSKY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Good morning and thank you all for attending today's hearing on legislation to make cars safer. We continue in the subcommittee on our mission to save lives. The number of vehicle-related fatalities has been staggering over the last several years. In both 2017 and 2018, vehicle-related deaths have exceeded 40,000.

This troubling development means that Congress must act, and today we are here to look at bills to address contributing factors to this spike in auto-related deaths. One of these factors is impaired driving. I thank my colleague Debbie Dingell for her leadership on this issue, and I thank Ranking Member McMorris Rodgers and Representatives Bucshon and McNerney for their initiative to address impaired driving.

Another factor is uneven or slow deployment of technology. Since 1990, over 800 children have died from heatstroke in vehicles. In the vast majority of those cases, the adult did not realize the child was inside the car. Most of the children dying are infants and toddlers, 87 percent are 3 years or younger, but adults as well as pets have fallen victim to heatstroke as well. Twenty-one children have died already this year. Twenty-one. This is unacceptable. We can do better, and we must do better.

This raises the question, How do we prevent heatstroke deaths? It is not enough to educate parents about the risks. Even the best parents can get distracted. We need safety features built into our vehicles. You get a warning when you leave your car keys in the ignition. You should get the warning when a child is left in the back seat, and that is what the Hot Cars Act does.

The bill, which was introduced with Representatives Tim Ryan and Peter King, would require new vehicles to be equipped with sensors, sensor technology, to detect the presence of a child in the vehicle and notify the driver or parent. This safety technology has already been developed, and it is available in some vehicles today. A Hot Cars Act will ensure that this lifesaving technology is equipped on all vehicles.

But our auto safety work does not end there. The New York Times has identified at least 28 deaths and 45 injuries since 2006 attributed to carbon monoxide poisoning caused by keyless ignition vehicles that were inadvertently left running. Since keyless ignition systems do not require drivers to turn off a vehicle to remove their key from the ignition, drivers can leave their vehicle's—and that is what happens—key fob in hand, not realizing that the vehicles are still running. A vehicle left running in an attached garage can and has quickly filled the living space with lethal levels of carbon monoxide. We will hear more about that today.

The rise in keyless ignition has also exacerbated the problem of automobile roll-aways. Unlike traditional ignition systems, a keyless ignition system permits the driver to exit the vehicle, key in hand, without the car being in park. Fortunately, some auto manufacturers, including GM and Ford, have responded to these hazards by implementing additional safety features, including auto-shutoff systems to prevent carbon monoxide poisoning and safeguards that prevent a vehicle from shutting down unless the vehicle is in park.

Still, few automakers seem willing to address these new risks to drivers and passengers and pedestrians and property from keyless ignition technology. And that is why—let me check on the time here, whoops—and that is why I introduced the PARK IT Act with my colleagues Darren Soto, Joe Kennedy, and Seth Moulton.

So I thank the witnesses for being here, especially Ms. Livingston for being here because she has experienced the tragedy of her parents dying. We will hear from her today. It takes a lot of courage to be here.

[The prepared statement of Ms. Schakowsky follows:]

PREPARED STATEMENT OF HON. JAN SCHAKOWSKY

Good morning, thank you all for attending today's hearing on legislation to make cars safer. The number of vehicle-related fatalities has been stagnant over the last several years. In both 2017 and 2018, vehicle-related deaths have exceeded 40,000.

This troubling development means that Congress must act. And today, we are here to look at bills to address contributing factors to this spike in auto-related deaths. One of these factors is impaired driving. I thank my colleague Debbie Dingell for her leadership on the issue, and I thank Ranking Member McMorris Rogers and Representatives Bucshon and McNerney for their initiatives to address impaired driving.

Another factor is uneven or slow deployment of technology. Since 1990, nearly 800 children have died from heat stroke in vehicles. In the vast majority of those cases, the adult did not realize the child was inside the car. Most of the children dying are infants and toddlers—87% are 3 or younger. But adults, as well as pets, have fallen victim to heatstroke as well.

Twenty-one children have died already this year. TWENTY–ONE. This is unacceptable. We can do better, and we must do better.

This begs the question—How do we prevent heatstroke deaths?

It's not enough to educate parents about the risks. Even the best parent can get distracted.

We need safety features built into our vehicles. You get a warning when you leave your keys in the ignition. You should get a warning when a child is left in the back seat.

That's what the Hot Cars Act does. The bill, which I introduced with Reps. Tim Ryan and Peter King, would require new vehicles to be equipped with sensor technology to detect the presence of a child in a vehicle and notify the driver or parent.

This safety technology has already been developed, and it's available in some vehicles today. Our Hot Cars Act will ensure that this lifesaving technology is equipped on all vehicles.

But our auto safety work does not end there.

The New York Times has identified at least 28 deaths and 45 injuries since 2006 attributable to CO poisoning caused by keyless ignitions vehicles that were inadvertently left running.

Since keyless ignition systems do not require drivers to turn off a vehicle to remove their key from the ignition, drivers can leave their vehicle—key fob in hand—not realizing the vehicle is still running. A vehicle left running in an attached garage can quickly fill the living spaces with lethal levels of carbon monoxide (CO).

The rise in keyless ignitions has also exacerbated the problem of automobile rollaways. Unlike traditional ignition systems, a keyless ignition system permits the driver to exit the vehicle—keys in hand—without the car being in park.

Fortunately, some auto manufacturers, including GM and Ford, have responded to these hazards by implementing additional safety features, including auto shut-off systems to prevent CO poisoning and safeguards that prevent a vehicle from shutting down unless the vehicle is in "park." Still, few automakers seem willing to address the new risks posed to drivers, passengers, pedestrians, and property from keyless ignition technology.

That's why I introduced the PARK IT Act with my colleagues Darren Soto, Joe Kennedy, and Seth Moulton.

I thank the witnesses for their testimony, and now recognize the ranking member for 5 minutes.

Ms. SCHAKOWSKY. So now I yield back, and I recognize Mrs. Rodgers, ranking member of the Subcommittee on Consumer Protection and Commerce, for 5 minutes for her opening statement.

OPENING STATEMENT OF HON. CATHY MCMORRIS RODGERS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

Mrs. RODGERS. Thank you, Madam Chair. And good morning to everyone and welcome to the Consumer Protection and Commerce Subcommittee legislative hearing on improving motor vehicle safety.

We lose more than 37,000 lives a year on our roads. We can and we must do more to make our roadways safer, especially considering most of these accidents were preventable. According to the National Highway Traffic Safety Administration, 94 percent of all accidents are due to human error. These include distracted driving,

driving drowsy, and driving while under the influence of alcohol or drugs.

Drunk driving remains a significant public health concern that tragically cuts life short for too many—not just for those who make the reckless decision to get behind the wheel after consuming alcohol, but also our family and friends on the road in the wrong place at the wrong time.

Drug-impaired driving is also on the rise. "If you feel different, you drive different." It is the new public safety message from NHTSA. It means exactly what it says. If you consume drugs, you will feel different. If you feel different, you will drive different. And if you drive different, you will put your life in danger and the lives of those on the road with you.

Whether the drug is illegal or legally prescribed, driving while drug impaired is a serious safety threat. According to a recent report, in 2016 more than a thousand fatally injured drivers, or almost 20 percent of the drug-positive drivers, tested positive for opioids in their system. The most frequent opioids abused were oxycodone, hydrocodone, morphine, fentanyl, and methadone.

Opioids aren't the only drug making our roads less safe. So is marijuana. In fact, marijuana is the most common drug found in fatally injured drivers. In 2012, my home State of Washington legalized marijuana. According to a recent report conducted by the Northwest High Intensity Drug Trafficking Area, one in five tenth-graders, one in four twelfth-graders reported riding with a driver who had been using marijuana. One in six twelfth-graders admitted to driving a vehicle within 3 hours of consuming marijuana. And the percentage of marijuana-positive drivers has more than doubled, from 7.8 percent to 18.9 percent, and fatal crashes involving marijuana have spiked to almost 13 percent, up from 7.8 percent prior to legalization.

Recreational use of marijuana poses a serious threat to roadway safety. We must learn from the lessons we have seen in Washington State and make sure that we are focusing on addressing drug-impaired driving and alcohol-impaired driving. That is why I, along with Mr. McNerney, have introduced legislation to direct NHTSA to study impaired driving to learn more about the risk drug impairment poses. Our solution gives NHTSA the flexibility it needs to examine the drug-impaired driving in the most efficient and effective way possible. It allows NHTSA to review methods to detect drug-impaired driving. It supports NHTSA's research to review methods to detect drug-impaired driving and develop impairment standards for driving under the influence.

Our bill will lead to a better understanding of the risks and the ways to prevent drug-impaired driving. It will allow NHTSA to produce extremely important data that will inform decisionmaking on policies that can save lives. We are also considering legislation introduced by my colleagues Mr. Bucshon and Mrs. Dingell that will authorize money that has been appropriated for the last 2 years, 2 fiscal years. Returning to regular order and ensuring funds are accounted for by this committee is critical. Remember, if you feel different, you drive different.

I would also like to acknowledge that this is the last day for Melissa, who has been the head staffer for the Republicans on the

Consumer Protection and Commerce Subcommittee. And I just want to say thanks for her exceptional leadership. She has a tremendous depth of knowledge, her strategic thinking, her hard work, all to get results on behalf of the many important issues before this committee. And although we are going to miss her, I just wanted to take this opportunity to recognize her and wish her all the best in this next chapter. Thank you, Madam Chair.

Ms. SCHAKOWSKY. Thank you. And let me also wish Melissa the best of luck and thank her for the service that she has been to our committee.

And now I would recognize Mr. Pallone, the chairman of the full committee, for 5 minutes for his opening statement.

OPENING STATEMENT OF HON. FRANK PALLONE, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. PALLONE. Thank you, Chairwoman Schakowsky, and thanks for all you do on these safety issues. I know we reported out of the full committee last week a number of initiatives from this subcommittee that you are responsible for that, you know, to help children and, you know, this continues with your constant efforts to help consumers, you know, in so many different ways.

Since 2014, the number of auto fatalities has steeply increased after nearly a decade of falling. And despite the rising death toll, the National Highway Traffic Safety Administration, or NHTSA, has failed to prioritize vehicle safety. NHTSA has failed to complete needed rulemakings or prioritize resources to address preventable injuries and fatalities.

Where the administration has been slow to act, Congress must step in. The bills we are considering today will help address preventable tragedies, including child vehicular heatstroke, carbon monoxide poisoning, and impaired driving. As we learned in May when this subcommittee held the hearing on summer driving dangers, 823 children have died from heatstroke after being left in hot cars over the last 20 years. And since that hearing, 2 more children have died and that is 21 children so far this year. No child should lose their life because they became trapped in a hot car.

Fortunately, technologies exist today that can end these senseless tragedies, technologies that can alert drivers to the presence of a child in a vehicle or remind a driver to check their back seat before leaving the car. Regrettably, these sorts of lifesaving technologies have not yet been widely deployed.

And I commend the chairwoman and Representatives Ryan and King for their work on the Hot Cars Act. This legislation would require vehicles to be equipped with safety technologies to detect and alert the driver to the presence of a child or occupant in the rear seat of a vehicle after the engine has shut off. And I look forward to exploring how this technological revolution can save lives.

I also look forward to exploring how we can ensure that technological innovations like keyless ignition systems do not actually present unintended safety issues. Keyless ignition systems provide an added level of convenience for the driver: Merely sit in the vehicle and push to start, all with your keys in your pocket or bag. But that added convenience has been tied to a troubling rise in carbon

monoxide deaths, more than three dozen since 2006. Without the physical motion of turning a key, some drivers inadvertently forget to turn off the vehicle—I will include myself among those—and some keyless ignition systems permit the engine to continue idling even when the driver exits the vehicle with the keys.

If the vehicle is left in an enclosed area, tragedy can ensue as dangerous levels of carbon monoxide build. Such a tragedy claimed the lives of Dr. James Livingston and Dr. Sherry Penney. I thank Ms. Livingston for testifying today and sharing her parents' story, and I again commend the chairwoman as well as Representatives Soto, Kennedy, Moulton, Deutch, and Gonzalez for introducing the PARK IT Act.

This legislation would ensure the engine of a keyless ignition vehicle automatically shuts off if left idling for an unreasonable amount of time. I also look forward to discussing two impaired-driving bills. With 10,000 deaths—30 percent of all fatal crashes—tied to drunk driving, and troubling increases in the rate of drug-impaired driving, we have to double down on our efforts to prevent such threats to auto safety.

[The prepared statement of Mr. Pallone follows:]

PREPARED STATEMENT OF HON. FRANK PALLONE, JR.

With more than 40,000 deaths and 4.6 million injuries in 2017 alone, the chaos and destruction on our Nation's roads has reached epidemic levels. And, unfortunately, automobile fatalities are on the rise. Motor vehicle death rates have steeply increased since 2014, after nearly a decade of falling.

A crisis of this magnitude demands swift and decisive action. Action to deploy innovative, lifesaving crash avoidance technologies like automatic emergency braking, forward collision warning, and lane keeping support, which hold the promise of cutting the number of automobile crashes in half. Action to develop technologies that can automatically detect when a driver is intoxicated and prevent the vehicle from moving. Action to modernize the 5–Star Safety Rating for the 21st century automobile; enhance recall efforts; and finalize over two dozen safety mandates languishing at NHTSA.

This hearing is the opening salvo in our campaign to bring tragedies on our Nation's roads to an end. And we are starting with a tranche of bills that will help eradicate some of the most devastating auto safety issues, like child vehicular heatstroke.

As we learned in May when this subcommittee held a hearing on summer driving dangers, 823 children have died from heatstroke after being left in hot cars over the last 20 years. Fifty-two last year alone, and 21 children so far this year. Since that hearing, 12 more children have perished.

No child should have their right to life taken from them because they become trapped in a hot car. Fortunately, technologies exist today that can end these senseless tragedies—technologies that can alert drivers to the presence of a child in the vehicle or remind a driver to check their backseat before leaving the car. Regrettably, these sorts of life saving technologies have not been widely deployed.

I applaud Chairwoman Schakowsky and Congressman Ryan for their work on the Hot Cars Act—legislation that would require vehicles to be equipped with safety technologies to detect and alert the driver to the presence of a child or occupant in a rear seat of a vehicle after the engine is shut off. And I look forward to exploring how these technological revolutions can save lives.

I also look forward to exploring how we can ensure that technological innovations—like keyless ignition systems—do not actually present safety issues. Keyless ignition systems provide an added level of convenience for the driver—merely sit in the vehicle and push to start, all with your keys in your pocket. But that added convenience has been tied to a troubling rise in carbon monoxide deaths—over three dozen since 2006.

Without the physical motion of turning a key, some drivers inadvertently forget to turn off the vehicle. And some keyless ignition systems permit the engine to continue idling even when the driver exits the vehicle with the keys. If the vehicle is

left in an enclosed area, tragedy can ensue as dangerous levels of carbon monoxide build.

Such a tragedy claimed the lives of Dr. James D. Livingston and Dr. Sherry H. Penney. I thank Ms. Livingston for testifying today and sharing her parents' story. And I applaud Chairwoman Schakowsky for introducing the PARK IT Act, legislation that would ensure the engine of a keyless ignition vehicle automatically shuts off if left idling for an unreasonable amount of time.

I also look forward to discussing two impaired-driving bills being considered here today. With 10,000 deaths—30 percent of all fatal crashes—tied to drunk driving and troubling increases in the rate of drug-impaired driving, we must double down on our efforts to prevent such threats to automobile safety.

I thank our witnesses for testifying this morning, and I look forward to the discussion.

Mr. PALLONE. So I want to thank our witnesses, and I wanted to yield the remainder of my time to Representative Dingell.

Mrs. DINGELL. Thank you, Mr. Chairman. And thank you and Chairman Schakowsky for holding this important hearing today. I want to start by talking about the single largest cause of traffic fatalities: drunk driving. This is a cause that matters to too many families that have been hit and struck by it, the most recent in my own community by the Abbas family in January.

The Abbas family was driving back from a family vacation when their car was struck head-on by a drunk driver, and there were no survivors. Mother, father, three children needlessly killed because someone made the decision to drink and drive. July, this month, is the deadliest month for drunk driving. Across the country, families and loved ones are repeating what our community went through in January.

It is time. Congress has to step up and do something, and do something we will. I am so proud to colead Mr. Bucshon's bill that we are considering here today that would authorize funds for pilot programs, demonstration projects, and innovative solutions to address impaired driving, and I also will be introducing legislation of my own later this week. I yield back the balance of my time. Thank you.

Mr. PALLONE. And I yield back, Madam Chair.

Ms. SCHAKOWSKY. The gentleman yields back, and the Chair now recognizes Mr. Walden, ranking member of the full committee, for 5 minutes for his opening statement.

OPENING STATEMENT OF HON. GREG WALDEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON

Mr. WALDEN. Good morning, Madam Chair.

Ms. SCHAKOWSKY. Good morning.

Mr. WALDEN. And thanks for having this hearing. Each year, tragically, we lose 37,000 people on our roads, in no small part due to impaired driving. And, in fact, since January of 2000, more than 200,000 people have died from impaired driving. Now, whether that is alcohol, marijuana, or opioids, the consumption of drugs is making our roads less safe and more deadly.

Alcohol-impaired driving remains a serious problem and one that cuts far too many lives short, as we all know. But drug-impaired driving has also taken a hold of our roadways, and to be clear, you cannot drive safely if you are impaired. While it is illegal to drive while under the influence of marijuana, opioids, or any potentially

impairing drug, even if the drug has been legally prescribed, sometimes it is difficult to figure out.

Driving while impaired by any substance, legal or illegal, puts drivers and those who share the road with them in great danger. The National Highway Traffic Safety Administration, NHTSA, is getting the word out about the dangers of driving after consuming drugs through its "If You Feel Different, You Drive Different" and "Drive High, Get a DUI" campaigns, and we are appreciative of that.

Today, we will discuss two measures that will help advance NHTSA's efforts to combat impaired driving introduced by Representatives Rodgers and Dr. Bucshon. The first bill, the Combatting Impaired Driving Act of 2019, introduced by Dr. Bucshon and Mrs. Dingell, authorized important funding to NHTSA to conduct research on impaired driving, including drug-impaired driving. The more NHTSA can focus on this issue, the more we can learn about its unique challenges and make better, more informed public policy decisions.

The second piece of legislation, the Impaired Driving Study Act of 2019, introduced by Mrs. Rodgers and Mr. McNerney, directs NHTSA to study impaired driving so we can learn more about the devastating effects marijuana- and opioid-impaired driving are having on our roads. And coming from a State that has legalized marijuana, this is an increasingly important issue to overcome.

The bill is intended to give NHTSA the flexibility it needs to determine how best to study this issue and requires NHTSA to report to us on the progress of the study as well any findings. And under the bill, NHTSA can review different methods to detect drug-impaired driving, work with State and local partners on State-based drug-impaired driving policies, and learn the role in extended drug impairment in motor vehicle accidents, and any other issues NHTSA believes necessary to examine to combat drug-impaired driving in effective and efficient ways.

So I appreciate the work on that and on, obviously, the Hot Cars Act as well.

[The prepared statement of Mr. Walden follows:]

PREPARED STATEMENT OF HON. GREG WALDEN

Good morning, and thank you Madame Chair for holding today's hearing focused on auto safety.

Each year, we lose almost 37,000 people on our roads, in no small part due to impaired driving. In fact, since January 2000, more than 200,000 people have died from impaired driving. Whether it be alcohol, marijuana, or opioids, the consumption of drugs is making our roads less safe.

Alcohol-impaired driving remains a serious problem and one that cuts far too many lives short. But drug-impaired driving has also taken hold on our roadways. To be clear, you cannot drive safely if you are impaired. It is illegal to drive while under the influence of marijuana, opioids, or any potentially impairing drug, even if the drug has been legally prescribed. Driving while impaired by any substance—legal or illegal—puts drivers and those who share the road with them in danger.

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The bill is intended to give NHTSA the flexibility it needs to determine how best to study this issue and requires NHTSA to report to us on the progress of their study as well as any findings.

Under this bill, NHTSA can review different methods to detect drug-impaired driving; work with State and local partners on State-based drug-impaired driving policies; learn the role and extent of drug impairment in motor vehicle accidents; and any other issue NHTSA believes necessary to examine to combat drug-impaired driving in effective and efficient ways.

This study will produce critical information necessary for us to make policy decisions. Saving lives from impaired driving is a bipartisan issue.

I am hopeful we can continue to work together to advance legislation to address this growing crisis of impaired driving on our roads.

Today, I am also interested in learning more about the other bills under consideration today, the Hot Cars Act, introduced by Rep. Ryan, and the PARK IT Act, introduced by Rep. Schakowsky, which seeks to address the threat of carbon monoxide poisoning from motor vehicles. It is worth noting that last week, we forwarded a bill led by Reps. Kuster and Carter to the House floor to incentivize installing carbon monoxide detectors in homes in order to help avoid these tragedies no matter the source of carbon monoxide.

Again, thank you for holding today's hearing.

Mr. WALDEN. And with that I want to make sure and provide plenty of time for Dr. Bucshon to discuss his legislation. With that, Madam Chair, I would yield to him.

Mr. BUCSHON. Thank you. And thank you to Chairwoman Schakowsky and Ranking Member McMorris Rodgers for holding this hearing today.

Impaired driving is an epidemic across our Nation that claims far too many lives each year. Although we continue to make headway in addressing drunk driving, drug-impaired driving is on the rise. In 2018, 38 percent of drivers killed in Indiana tested positive for alcohol, while 45 percent tested positive for one or more drugs.

It is important that we take steps to promote technological advancements that help our law enforcement professionals on the ground to detect and prevent impaired driving. For that reason, I introduced, along with Congresswoman Dingell, H.R. 3890, the Combatting Impaired Driving Act of 2019.

This bill authorizes the Department of Transportation to provide funding to support grants and pilot programs that create innovative solutions to address impaired driving, including alcohol-, opioid-, and marijuana-impaired driving. I am glad to see the committee discuss this legislation today, and I look forward to hearing from our witnesses on how we can eliminate impaired driving and save lives. And I yield back to Mr. Walden.

Mr. WALDEN. And I yield back.

Ms. SCHAKOWSKY. The gentleman yields back.

And the Chair would like to remind Members on the committee that, pursuant to committee rules, Members' written statements will be made part of the record.

And I would now like to introduce our witnesses for today's hearing. We have Ms. Susan Livingston, daughter of Dr. James D. Livingston and Dr. Sherry H. Penney. And I just want to give again a special thank you to you. In our efforts to save lives in this com-

mittee and to change laws, we have seen the courage of family members who have suffered such devastating tragedies come forward, and appreciate that so much.

We have Dr. Benjamin Nordstrom, executive director of Responsibility.org. And Ms. Cathy Chase, president, Advocates for Highway and Auto Safety. We want to again thank all the witnesses for joining us today. We look forward to hearing your testimony. At this time, the Chair will recognize each witness for 5 minutes to provide their opening statement.

Before I begin, I want to explain the lighting system for those who may not know it. In front of you is a series of lights. The light will initially be green at the start of your opening statement. The light will turn yellow when you have 1 minute remaining, so please begin to wrap up your testimony at that point. The light will turn red when your time expires. So, Ms. Livingston, you are now recognized for 5 minutes.

STATEMENTS OF SUSAN CLARK LIVINGSTON, DAUGHTER OF DR. JAMES DUANE LIVINGSTON III AND DR. SHERRY PENNEY LIVINGSTON; BENJAMIN R. NORDSTROM, M.D., EXECUTIVE DIRECTOR, RESPONSIBILITY.ORG; AND CATHERINE CHASE, PRESIDENT, ADVOCATES FOR HIGHWAY AND AUTO SAFETY

STATEMENT OF SUSAN CLARK LIVINGSTON

Ms. LIVINGSTON. Thank you. Good morning, Chair Schakowsky and Ranking Member Rodgers, honored members of the subcommittee. My name is Susan Clark Livingston. I am the first female partner of Brown Brothers Harriman, the private banking firm in Boston. I am on the executive committee and board of governors of the Investment Company Institute in Washington, and honorary consul general to Luxembourg for the Commonwealth of Massachusetts. But today I am here as a daughter and as a mother.

I appreciate the opportunity to speak to you about the tragic simultaneous deaths of my parents, Dr. James Duane Livingston and Dr. Sherry Penney Livingston. They died together the evening of this past May 7. Their bodies were found the early morning of May 10. I will never forget my sister Barbara's phone call to me that morning saying, "Dad and Sherry passed away last night, both of them, from carbon monoxide."

There are no words for this kind of family tragedy, and yet I want the story told. I am here today to tell you that these deaths were preventable. They died of indifference. These deaths were caused by an automobile design flaw that can be fixed at low cost with readily available technology. It is a design flaw the car industry and the NHTSA have known about since keyless ignitions were introduced in 2006, 13 years ago. The truth is, the car manufacturers have failed to install this simple fix voluntarily. The NHTSA has failed to institute regulations that were proposed back in 2011 to prevent these deaths, so we beg you to act so that no other family has to go through what ours has experienced.

As a family, we are still in shock, and we speak of these amazing individuals in the past tense. It still feels very strange. They are

not yet in the ground. They will be buried next week on Tuesday, July 30th, at St. James Church in Hyde Park, New York—the church of our ancestors and that of Franklin Delano Roosevelt—buried together beside my grandparents and great-grandparents. We are still in mourning, yet the more I learned about the failure of these car manufacturers constantly touting the safety of their vehicles to properly protect consumers, the more I want to be here today, which I know is a busy day in Washington, but to ask for your help to get this done.

Jim and Sherry had a love affair like no other. Married 34 years, they were inseparable. Dad called Sherry his bride, and their love and respect for each other were unmatched. The news reports on their deaths referred to them as elderly, but the word hardly describes the physical and mental energy of these two intellects. Daily aerobics, tennis, swimming, attendance at every Harvard Club event both in Sarasota and Boston, season tickets to the theater—they were indeed in their 80s, but these seniors had so much life and love left in them. We loved them. We miss them every day.

Dad got his Ph.D. from Harvard in Physics at the very young age of 23. A brilliant scientist, 25-year research career at GE in Schenectady, he had seven patents to his name on alloys that are still used in the space program today. He followed Sherry's career to Boston, being a feminist, and he was a professor of physics at MIT for 22 years. Top-rated professor year after year for freshman physics. I liked having him help me with my homework. He was an author and avid tennis player, and he wrote a space column for The Patriot Ledger. He was a pretty cool guy. He was a proud father of three daughters and his only granddaughter, Julia Pell Livingston, age 17, who is here with me today.

Sherry, my stepmom, was a driving force of nature. At 4-foot-10, she punched above her weight. Provost at Yale, first woman chancellor of the entire system of University of Massachusetts, and chancellor of UMass Boston with 20,000 students for over 12 years. She ran the Center for Collaborative Leadership there until last year. There is an endowed chair there in her name. She was my mentor, my role model. She was on the board of Boston Edison, now Eversource, the JFK Library. The night she died she gave a speech to the International Women's Forum in Sarasota entitled, "Women in the 21st Century: Stuck or Unstuck?" That was the last time she was seen alive.

Dad retired from MIT just 3 years ago, but even after retirement he had regular speaking engagements and continued to author books. He awaited Sherry's retirement from UMass last year. They looked forward to retirement between Sarasota and Hingham, Mass, where they had just bought a new oceanfront condo. It was built last winter. It looked out over the shipyard and the harbor.

Their bodies were found Friday. They were moving into the condo the following Tuesday. Sadly, they never saw it. They were looking forward to these final years together, on the verge of a new adventure after each working close to 50 years, contributing as teachers and wonderful contributors to society.

They are no longer here to tell us what happened, and people ask what happened, but the scenario might go something like this. It could happen to anyone. It happened to two energetic and lively

Ph.Ds. After Sherry's speech, they drove back to their condo, they opened the automatic door to the two-car garage and drove in. Neither of these two were hard of hearing. Sherry reminded Jim, "It is trash night," and he went over to roll out the garbage can and the recycling bin. I know just where those barrels were in the garage.

Sherry was still in the car. Perhaps the radio is still on. You know, the radio can run 4 minutes after a car stops. She went to the back seat, took out the briefcase and her speech, which we found later on the table in the condo, she entered the ground floor condo through the door in the garage and closed the garage door. After putting the barrels at the end of the drive, Dad entered the condo through the front door just next to the garage. The police found the key fob in Sherry's purse when they recovered the bodies.

These engines are quiet. The key fob can be miles away from a car once that engine starts running, some of you know. This was a flawed vehicle murder weapon. It was missing a basic safety feature. The neighbor noticed the barrels—sorry.

Ms. SCHAKOWSKY. Got to wrap up. Go ahead.

Ms. LIVINGSTON. OK, no problem.

Ms. SCHAKOWSKY. Just finish really fast.

Ms. LIVINGSTON. The neighbor noticed the barrels still left outside at the curb. And just like Chairman Pallone, I myself have also left my car idling. Carbon monoxide overwhelms a victim, causes piercing headaches, disorientation, nausea. It is not a great way to die. They found my dad's body, his head in a pool of blood. The cleaning woman called 9—1—1. They determined a hazmat team needed to evacuate the carbon dioxide.

Ms. SCHAKOWSKY. I am going to have to cut off your testimony.

Ms. LIVINGSTON. Let me finish. We beg of you to please prevent another family from going through this. I know we cannot bring Dad back and Sherry back. Our family sky is dark after losing these two bright stars, and how many more need to die? Can this measure please be passed? Thank you.

[The prepared statement of Ms. Livingston follows:]

Wednesday, July 24th, 2019

Hearing Before the House Committee on Energy and Commerce

Subcommittee on Consumer Protection and Commerce

Testimony of Susan Clark Livingston

Daughter of Dr. James Duane Livingston III

and Dr. Sherry Penney Livingston

Testimony of Susan Clark Livingston

Good Morning, Chair Schakowsky and honored members of the Subcommittee. My name is Susan Clark Livingston. I am the first female Partner of the private banking firm, Brown Brothers Harriman and on the Board of Governors of the Investment Company Institute here in Washington, DC. I am the Honorary Consul General to Luxembourg for the Commonwealth of Massachusetts. But today, I am here as a daughter and a mother.

I appreciate the opportunity to speak to you today about the tragic simultaneous deaths of my parents, Dr. James Duane Livingston and Dr. Sherry Penney Livingston. They died together the evening of this past May 7th. Their bodies were found the early morning of May 10th. I will never forget my sister, Barbara's, phone call to me that morning saying:

"Dad and Sherry passed away last night. Both of them. From carbon monoxide".

There are no words for this kind of family tragedy. And yet, I want their story told. So I am here today to tell you that these deaths were preventable. They died of indifference. These deaths were caused by an automobile design flaw that can be fixed at low cost, with readily available technology. It is a design flaw that the car industry and the NHTSA has known about since keyless ignitions were introduced in 2006. The truth is that the car manufacturers have failed to install this simple fix voluntarily. The NHTSA has failed to institute regulations proposed in 2011 to prevent these deaths. We beg Congress to act now so that no other family has to go through what ours has

experienced.

As a family, we are still in shock and to speak of these amazing individuals in the past tense still feels strange. They are not yet in the ground. They will be buried next week on Tuesday July 30th at St. James Church, Hyde Park, New York, the church of our ancestors, and of Franklin Delano Roosevelt. Buried together, beside my grandparents, great grandparents.

We are still in mourning, yet the more I learned about the failure of these car manufacturers, constantly touting the safety of their vehicles, to properly protect consumers, the more I want to be here to ask for your help to get this done.
Jim and Sherry had a love affair like no other. Married 34 years, they were inseparable. Dad still called Sherry his "bride" and their love and respect for each other were unmatched. The news reports on their deaths referred to them "elderly", but the word hardly describes the physical and mental energy of these two intellects. Daily aerobics, tennis, swimming, attendance at the Harvard Club events, seasons tickets to the theater. They were indeed in their 80's, but these seniors had so much life and love left in them. We loved them and miss them every day.

My father got his PhD from Harvard in physics at the young age of 23. A brilliant scientist who had a 25 year research career at GE in Schenectady, he had seven patents on metal alloys, still used today in the space program. He followed Sherry's career to Boston and was a Professor of Physics at MIT for 22 years. He was a top rated professor year after year for freshman physics. He was an author, an avid tennis player, and wrote

a space column in the Patriot Ledger. He was pretty cool guy. He was a proud father of three daughters, and his only granddaughter, Julia Pell Livingston, age 17, here with me today.

Sherry, my stepmom, was a driving force of nature. At 4'10", she punched above her weight as Provost at Yale, the first woman Chancellor of University of Massachusetts. She was Chancellor of University of Massachusetts, Boston for over 12 years, and ran the Center for Collaborative Leadership there until last year. There is an endowed chair there in her name. Sherry was my mentor and role model. She was on the Board of BostonEdison, now Eversource, the JFK Library. The night she died, she gave a speech for the International Women's Forum, entitled "Women in the 21st Century: Stuck or Unstuck?". That was the last time she was seen alive.

Dad retired from MIT just three years ago, but even after retirement, he had regular speaking engagements and continued to author books. He awaited Sherry's retirement from UMass last year. They looked forward to retirement between Sarasota and Hingham, Mass, where they had just bought a new oceanfront condo. The condo was built last winter, looking out at the shipyard and harbor. Their bodies were found Friday, they were moving into the condo on Tuesday. Sadly, they never saw it. They were looking forward to enjoying their final years together, on the verge of a new adventure, after each working close to 50 years.

They are no longer here to tell us what happened, but the scenario might go something like this. This could happen to anyone. It happened to two energetic and lively PhD's.

After Sherry's speech in Sarasota, they drove back to their condo. They opened the automatic door to the two car garage, drove in. Neither of these two were hard of hearing. Sherry reminded Jim it was trash night, and he went over to roll out the garbage can and recycling bin. I know just where those barrels were in the garage. Sherry was still in the car, perhaps the radio still on. It stays on a full four minutes, even after the engine quits. She went to the back seat and took out her briefcase and her speech, which we found on the table inside the condo. She entered the ground floor condo through the door in the garage, and closed the garage door.

After putting the barrels at the end of the drive, Dad entered the condo through the front door, just to the side of the garage. The police found the keyfob still in Sherry's purse when they recovered the bodies. These car engines are quiet, the keyfob can be miles away from the car once the engine starts running. This was a flawed vehicle, a murder weapon, missing a basic safety feature.

I myself found my car had been idling for nine hours without an ignition autostop at the outdoor garage when I went to work on the T in Boston. Stories have come flooding out about the failure and vagaries of keyless ignitions, fortunately most not fatal. There is no central database on deaths from keyless ignition. My parents are not a statistic. Their deaths have left an enormous hole in the hearts of five children and three grandchildren.

Carbon monoxide overwhelms the victim, causes piercing headaches, disorientation and nausea. Sherry weighed only 80 pounds and they found her body in the bed. My father was six foot one and weighed 175 pounds. He got up in the night and clearly knew

something was wrong. His body was found on the floor of the bathroom in a pool of blood, flashlight in hand. Dad got up with the flashlight to investigate, not wanting to bother Sherry in her sleep. His last moments, falling down on the floor, feeling worried, disoriented, nauseated—haunt me every night. The white tiles, the white wall to wall carpet. Now stained with blood.

The cleaning woman called 911 and the Sarasota Fire Department determined immediately that the hazmat team needed to evacuate carbon monoxide. There were several firetrucks, helicopters, and men in hazmat suits on the morning news. It took over six hours to evacuate the heavy gas of carbon monoxide and car exhaust from their condo. The level of carbon monoxide three days after their death was above the maximum that can be recorded on the meter of 500 parts per million (ppm).
No level of CO is healthy. The usual allowable level is around 30-50 ppm before an alarm goes off.

The cars were both in the garage, but not running. You may ask why there was no CO monitor, as is required up in north. In Florida, CO monitors are not required as they had only electric hot water and heat. They are really not as commonly used there.
The car engine stopped with a third of a tank left, the battery dead.
With an inexpensive and readily available ignition autostop, the car would have stopped 30 minutes after it arrived in the garage. And Jim and Sherry would still be alive. I learned that GM and Ford both have embraced this inexpensive fix. And they even did recalls to fix it on existing cars. GM and Ford support the new legislation. I am bewildered, and cannot get my head around why the NHTSA and Congress have not yet

mandated this simple safety feature. The car manufacturers continue to proudly say they meet all federal standards, and market their cars for their safety features. I understand the industry desire for less regulation and that the NHTSA and Congress have a lot on your plates. Technology has outpaced regulation. Keyfobs are a deadly convenience without the ignition autostop.

I am not a technician, or an auto expert. I am a daughter and a mother. I know my parents would still be alive today if Congress had passed a safety law to protect consumers from this design flaw.

Weeks after this very public death, Toyota agreed to add this ignition autostop feature to new models this fall, but no recalls. A small victory but there is more work to do.

We beg of you to please prevent another family from going through this. I know we cannot bring Dad and Sherry back. Our family's sky is dark after losing these two bright stars. How many more need to die before this measure can be passed?

[Ms. Livingston submitted the following additional material for the record:]

The New York Times

Deadly Convenience: Keyless Cars and Their Carbon Monoxide Toll

Weaned from using a key, drivers have left cars running in garages, spewing

exhaust into homes. Despite years of deaths, regulatory action has lagged.

Without having to turn and remove a key to shut off the motor, drivers can be lulled into mistakenly thinking that the car has stopped running.

By David Jeans and Majlie De Puy Kamp

May 13, 2018

It seems like a common convenience in a digital age: a car that can be powered on and off with the push of a button, rather than the mechanical turning of a key. But it is a convenience that can have a deadly effect.

On a summer morning last year, Fred Schaub drove his Toyota RAV4 into the garage attached to his Florida home and went into the house with the wireless key fob, evidently believing the car was shut off. Twenty-nine hours later, he was found dead, overcome with carbon monoxide that flooded his home while he slept.

"After 75 years of driving, my father thought that when he took the key with him when he left the car, the car would be off," said Mr. Schaub's son Doug.

Mr. Schaub is among more than two dozen people killed by carbon monoxide nationwide since 2006 after a keyless-ignition vehicle was inadvertently left running in a garage. Dozens of others have been injured, some left with brain damage.

Keyless ignitions are now standard in over half of the 17 million new vehicles sold annually in the United States, according to the auto information website Edmunds. Rather than a physical key, drivers carry a fob that transmits a radio signal, and as long as the fob is present, a car can be started with the touch of a button. But weaned from the habit of turning and removing a key to shut off the motor, drivers — particularly older ones — can be lulled by newer, quieter engines into mistakenly thinking that it has stopped running.

Seven years ago, the world's leading automotive standards group, the Society of Automotive Engineers, called for features like a series of beeps to alert drivers that cars were still running without the key fob in or near the car, and in some cases to shut the engine off automatically.

"After 75 years of driving, my father thought that when he took the key with him when he left the car, the car would be off," said Doug Schaub, whose father, Fred, died of carbon monoxide poisoning last year.
Andrea Morales for The New York Times

The gas level in Fred Schaub's home was at least 30 times the level that humans can tolerate.

The National Highway Traffic Safety Administration proposed a federal regulation based on that idea, a software change that it said could be accomplished for pennies per vehicle. In the face of auto industry opposition, the agency let the plan languish, though it says a rule is still under consideration.

For now, regulators say they are relying on carmakers to incorporate such warning features voluntarily. But a survey of 17 car companies by The New York Times found that while some automakers go beyond the features recommended by the standards group, others fall short.

Safety measures have been a matter of contention among automakers, sometimes even internally. Toyota, for example, has a system of three audible signals outside the car, and one inside, to alert drivers getting out of a vehicle that the motor is still running. But when Toyota engineers determined that more effective warning signals were needed — like flashing lights or a unique tone — the company rejected the recommendation, according to testimony in a wrongful-death suit.

Toyota models, including Lexus, have figured in almost half of the carbon monoxide fatalities and injuries identified by The Times. Toyota says its keyless ignition system "meets or exceeds all relevant federal safety standards."

Some automakers have designed newer models that alert drivers more insistently when the engine is left running — or that shut it off after a certain period. Ford's keyless vehicles now have a feature that automatically turns off the engine after 30 minutes of idling if the key fob is not in the vehicle, the company said recently. (According to a federal lawsuit, Ford began introducing the feature in 2013.)

But many older vehicles have not been retrofitted to reduce the hazard, despite the modest expense of doing so. It cost General Motors $5 per car to install the automatic shutoff in a 2015 recall, according to a G.M. report to the safety agency.

Regulations require automakers to address other hazards associated with keyless vehicles — theft and rollaways — and those measures might also reduce the carbon monoxide danger. But the safety agency has found shortcomings and inconsistencies by automakers in meeting those rules.

As the number of carbon monoxide deaths grows, the hazard is no secret. A Florida fire chief saw so many cases that he took to handing out carbon monoxide detectors. And litigation against the companies is mounting.

"It's just been so hard," said Kimberlin Nickles, whose daughter, Chasity Glisson, died after she left her Lexus running in her Florida garage.
Scott McIntyre for The New York Times

"We're going to continue to see deaths and injuries," said Sean Kane, founder of Safety Research and Strategies, an auto safety research group. "And the manufacturers will continue to settle cases."

The exact number of deaths related to carbon monoxide from keyless-ignition vehicles left running is unknown, as no federal agency keeps comprehensive records. Through 2016, the most recent year for which data is available, the safety agency had investigated only four fatal incidents. From news reports, lawsuits, police and fire records and incidents tracked by advocacy groups, The Times has identified 28 deaths and 45 injuries since 2006, but the figures could be bigher.

Carbon monoxide is odorless and colorless, depriving the heart, brain and other vital organs of oxygen. Victims are sometimes found with a cherry red rash, a symptom of carbon monoxide molecules attaching to red blood cells. Some who survive live with irreversible brain damage. One couple described a life where they now struggle with severe memory loss and are dependent on bired assistants.

The gas level in Fred Schaub's home was at least 30 times the level that humans can tolerate. His body was found in his bed, with a rash on his head and chest.

"The plants inside the house lost their leaves," said Doug Schaub, his son.

A Risk Detected Early

The keyless ignition was introduced as a luxury feature in Mercedes-Benz vehicles in Germany in 1998, a year after Daimler-Benz filed for a German patent, and entered the American market in 2002. Some carmakers called it the "smart key," a wireless device sending a code to the car's computer so the driver can start the engine with a button, instead of a mechanical key. It was meant as an additional selling point for luxury cars: no more fumbling for keys.

The risk identified initially was theft, because drivers might leave the key fob in the vehicle by accident. (In conventional ignitions, under regulations adopted in the 1990s, tbe key cannot be removed unless the car is in park.) The National Highway Traffic Safety Administration's general counsel warned automakers in 2002 that keyless ignitions would be prone to mishaps arising from human error. In 2006, the agency updated its regulations to state that with keyless ignitions, "a warning must be sufficient to catch a driver's attention before he or she exits the vehicle without the keys."

Two weeks later, a 70-year-old Florida woman, Jeanette Colter, failed to notice that she had left her keyless Toyota Avalon running in the garage. The home filled with carbon monoxide and she collapsed and died between the bedroom and the kitchen, according to her daughter Vickie. Her 89-year-old husband, David, died in the bedroom. They appear to have been the first victims of carbon monoxide poisoning linked to keyless vehicles.

By 2009, a number of such incidents had come to the attention of the Society of Automotive Engineers, which formed a panel to develop recommended practices to address keyless ignition hazards. The objectives included minimizing "user-instigated errors" like "exiting the vehicle while the propulsion system is enabled."

The engineering group's recommendations, issued in January 2011, called on carmakers to install an "externally audible or visual alert" — implying an unspecified number of beeps, or a warning light — when all doors are closed, the key fob is not present and the engine is still running. If the engine automatically shuts off, the alerts are not necessary.

The same year, the traffic safety administration proposed a key fob rule that would require car manufacturers to provide additional internal and external warning beeps. In addition to protecting against rollaways, it said this would reduce "incidents of carbon monoxide poisoning." Although it made no provision for an auto-shutoff function — an option that the Society of Automotive Engineers cited — the agency said its own proposal would be "more enforceable."

Compliance would cost the industry less than $500,000 a year in software coding for millions of keyless vehicles, the traffic safety administration said, adding, "Preventing even one serious injury over three years would make the proposed rule cost-beneficial."

The auto industry opposed the proposal, and a trade group asserted that the regulator's use of vehicle owners' questionnaires to compile a database of defects did not meet the evidence standards of federal vehicle-safety law.

The traffic safety administration released a video two years ago that highlighted the risks of keyless vehicles, including carbon monoxide poisoning. But the agency has postponed adoption of the keyless ignition regulation three times, and in the meantime at least 21 people have died.

"Once N.H.T.S.A. has finished its review and determined the best path forward, N.H.T.S.A. will take appropriate action," the agency said in a statement in March.

'I Couldn't Breathe'

A bad dream woke Michael Sobik on Oct. 8, 2015, at his home in Miramar Beach, Fla. The smell of fumes filled his nostrils and he looked over at his wife, Jamie, realizing his motor skills were slow. Car fumes and carbon monoxide emitted from Mrs. Sobik's Lexus had filled the garage overnight and flooded the home.

They were overcome by nausea as their blood cells were starved of oxygen. Mr. Sobik stumbled through the house to the garage and was knocked by a rush of fumes. Unable to make sense of what was happening, he opened the garage door and went back into the house.

Mrs. Sobik, in the meantime, had fallen out of bed in an attempt to stand up. "I couldn't breathe, I was gasping," she said, recalling that her husband shouted at her to get outside. "Next thing you know he's dragging me onto the grass."

Disoriented and vomiting, she asked if they were about to die.

"I remember the fear in telling her no because I didn't know," Mr. Sobik said. When fire marshals arrived, the gas reading inside the house was 80 times the tolerable level for humans, and over 100 times inside the Lexus.

Timothy Maddock was left with a brain injury in the carbon monoxide incident that killed his girlfriend, Chasity Glisson. They were found lying motionless on the bathroom floor. Scott McIntyre for The New York Times

Mr. Maddock and Ms. Glisson in an undated photo. No federal agency keeps comprehensive records of deaths arising from carbon monoxide episodes involving keyless vehicles.

Others have experienced similar episodes. One couple, Timothy Maddock and Chasity Glisson, were found motionless on the bathroom floor of Ms. Glisson's Florida home in 2010 after she unwittingly left her Lexus running in the garage. Ms. Glisson died, and was found covered in a rash. Mr. Maddock survived and now lives with a brain injury.

"It's just been so hard," said Ms. Glisson's mother, Kimberlin Nickles. "All I've ever wanted is something to be done for the cars to be safer."

In Palm Beach County, Fla., which has a large number of older residents, the fire department noticed a spike in incidents as keyless ignitions became common.

"They were literally driving their own vehicles into the garage and closing the door," said Doug McGlynn, a veteran firefighter. Mr. McGlynn says such incidents became so numerous in Palm Beach County, where he is a district chief for the Fire Rescue Department, that his unit began handing out carbon monoxide detectors and signs for residents to display in their garages, with a clear message: "Carbon Monoxide Kills. Is Your Car Off?"

The tactic appears to have worked. The department started a public information campaign in 2015, and from March 2016 to October 2017 it recorded a 30 percent decline in carbon monoxide incidents caused by vehicles, most with keyless ignitions. But despite the local progress, deaths and injuries are mounting across the country.

The Sobiks live with severe brain injuries and have hired assistants to help them carry out day-to-day tasks. Mrs. Sobik, a former figure skater, can no longer run. Her husband once prided himself for "running circles around people" as a businessman, but now routinely forgets to return calls.

"Memory loss has been absolutely terrible," he said. "I have to think: 'Have I eaten lunch today? Did I take vitamins this morning?' I find myself doing things and I'm not sure where I'm going. It's a very frightening and very scary aftermath."

'No Adequate Punishment'

With no standard in place for alerts or other features that would address the problems of keyless vehicles left running in confined spaces, the traffic safety administration has said repeatedly that it is convinced that automakers intend to meet the Society of Automotive Engineers' recommended practices. And some do.

But it can be difficult to determine with precision what measures automakers have taken on their own — even when they are asked directly.

"You can't trust car corporations to police themselves," said John Uustal, a Florida-based lawyer involved in two keyless ignition cases. "There's no adequate punishment."

Doug McGlynn, a veteran firefighter in Palm Beach County, Fla., started handing out carbon monoxide detectors at community meetings after responding to several incidents in which a car was left running in a garage. Scott McIntyre for The New York Times

Mr. McGlynn's fire rescue unit also distributed signs for residents to display in their garages. The county has a large number of older residents. Scott McIntyre for The New York Times

Even among cars from the same automaker, there is inconsistency. Fiat Chrysler said that on its keyless cars, a dashboard warning is displayed if the key fob is removed while the motor is running, and that "on certain 2018 model year vehicles," an internal chime sounds for 30 seconds. (For older models, it said, the chime sounds until the key fob returns to the vehicle.) But a spokesman would not discuss the feature on a model-by-model basis.

At Mazda, keyless ignition is now standard, and some vehicles have an "advanced keyless entry" system that helps alert the driver to a running engine. If the driver gets out, the doors are closed and the engine is running, six repetitions of a double beep sound inside and outside the car, and a warning light activates on the instrument panel. On other Mazda vehicles in the same circumstances, the external warning sounds only if the key fob is still in the vehicle.

And Mazda has not incorporated a system that automatically shuts off the engine after a certain time of idling.

Even when precautions are in place, some safety experts, lawyers and victims say the automakers need to do more. At Toyota, such voices came from inside the company.

According to testimony in a wrongful-death lawsuit, Toyota began an investigation into its keyless technology, conducted by its technical center in Michigan, after an employee drove 250 miles to Chicago in 2007 and realized that the remote key was still in Ann Arbor, Mich. (The witness did not know how this happened — for example, whether the fob was close enough to

send a signal, but not inside the vehicle, when the car started.) Toyota engineers noted that Mazda vehicles beeped externally six times, as opposed to three external beeps in Toyota models. According to a company document cited in a deposition, they concluded that "Toyota vehicles do not have adequate smart-key-absent warning system."

Shaun Austin, a quality control manager for Toyota in North America who testified in a wrongful-death suit, stressed the issue internally. A Toyota team in North America was in touch with corporate headquarters in Japan about adding flashing lights and a unique tone that would alert the driver if the car was still running without the key fob present, he said in a court deposition, but all those suggestions were rejected.

Contacted for this article, Mr. Austin directed questions to Toyota. When asked why the suggestions were rejected, Toyota declined to comment.

Its three external beeps satisfy the engineering society's recommendations.

An Inquiry Without Action

At one point, the traffic safety administration appeared to start taking a keener interest in the hazards. It undertook an investigation of seven automakers in 2013-14, conducting tests and asking for documentation of their safety features for keyless vehicles. But the inquiry was quickly and inconclusively wound down.

In a statement in March, the agency said it was evaluating comments on the proposed rule and the data for carbon monoxide deaths and injuries.

In the meantime, in a society increasingly growing older, the hazard is likely to be compounded by demographics.

At tbe funeral of Fred Schaub, his family said farewell while he lay in the coffin wearing a New York Police Department hat from his detective years. It partly covered the rash on his head.

"My dad isn't going to be the last one who passes away from this," Doug Schaub said.

Correction: *May 14, 2018*
An earlier version of this article included a quotation from a family member of a carbon-monoxide poisoning victim that referred incorrectly to the cause of an explosion of Pepsi cans in the victim's garage at the time of the fatal episode. (The error was repeated in a caption.) The explosion of the soda cans was most likely caused by heat; a carbon-monoxide buildup would not cause such an explosion.

Correction: *May 15, 2018*
An earlier version of this article referred incorrectly, based on information from a company spokesman, to the availability of an automatic-shutoff feature in Fiat Chrysler cars. One model, the 2018 Chrysler Pacifica hybrid, shuts off the engine after a certain time of idling; it is not the case that no Fiat Chrysler vehicle does so.

A version of this article appears in print on May 14, 2018, Section A, Page 1 of the New York edition with the headline: Keyless Cars Turn Tiny Lapses Into Invisible Clouds of Death

The New York Times

'Very Smart People,' but a Keyless Car's Downside Killed Them

By David Jeans

June 28, 2019

For Sherry H. Penney, a former university chancellor, and her husband, James D. Livingston, a retired physicist, the 2017 Toyota Avalon was a sensible purchase. It was a model she and her husband had owned before, but the new version had electronic sensors and other advanced features.

"The Avalon is very safe," Mr. Livingston's daughter Susan recalled hearing Ms. Penney say.

Last month, one of those features proved fatal.

Ms. Penney, 81, and Mr. Livingston, 88, were found dead at their home in Sarasota, Fla., poisoned by carbon monoxide, according to preliminary tests by the local medical examiner. Susan Livingston said that after the car — which had a keyless ignition — pulled into the garage attached to their house, the engine had continued to run.

The deaths highlight a hazard that regulatory and legislative efforts have yet to remedy: Without the motion of turning a physical key, some car owners, especially older ones, forget to turn off a vehicle.

Based on news reports, lawsuits, police and fire records, and research by advocacy groups, at least 36 people have been killed in the United States in such incidents since 2006, including seven in the past six months. Dozens of others have been injured, some left with brain damage.

The deaths of Ms. Penney and Mr. Livingston were all the more striking because

of their accomplishments in academia and science. Before retiring to Florida, Ms. Penney was the first woman to serve permanently as chancellor of the University of Massachusetts Boston and held other leadership roles in the UMass and State University of New York systems. Mr. Livingston, an expert on magnets, spent decades as a researcher at General Electric and taught at the Massachusetts Institute of Technology. The couple collaborated on a book about Martha Wright, a women's rights figure in the 1800s who was Mr. Livingston's great-great-grandmother.

"These are very smart people," Ms. Livingston said. "This kind of situation can happen to anybody."

The National Highway Traffic Safety Administration, which oversees the auto industry, proposed a rule for keyless vehicles in 2011 mandating a one-second audible external warning to drivers to turn off the ignition. The rule would cost the auto industry $500,000 a year, according to an agency estimate. But after lobbying from the industry, the proposal has remained in limbo.

Asked recently for comment, the agency repeated earlier guidance, pointing consumers to a safety video about the use and potential dangers of keyless ignitions.

Some keyless models activate audible warnings or flashing lights inside or outside the car if the door is opened while the motor is running. The Toyota Avalon, for example, is designed to beep once internally and three times externally in such circumstances. But as the deaths of Ms. Penney and Mr. Livingston indicate, such alerts are not always adequate.

"I think if they bought a different car, they'd be alive," Ms. Livingston said.

Contacted for this article, the automaker said, "Toyota vehicles meet or exceed

all regulatory safety standards."

An investigation by The New York Times last year highlighted the extent of the hazard with keyless ignitions and the regulatory inaction. Soon after, Senator Richard Blumenthal, a Connecticut Democrat, demanded during a hearing that the highway safety agency adopt its proposed rule and require carmakers to make vehicles shut off automatically after a set period of idling. Earlier this year, Mr. Blumenthal introduced a bill to do just that.

The Senate legislation, the Park It Act, has yet to be scheduled for a committee hearing. But this month a group of House members — three Democrats and a Republican — introduced an identical bill in the Energy and Commerce Committee.

"This is something we clearly have the technology to prevent," Representative Jan Schakowsky, an Illinois Democrat and the bill's lead House sponsor, said of the carbon-monoxide deaths.

Ford and General Motors have announced their support for the legislation.

Some automakers have added an automatic shut-off, including Ford on all its keyless vehicles since the 2015 model year. G.M. retrofitted some of its vehicles to add the automatic shut-off, at $5 apiece, the company told regulators.

Toyota, whose vehicles have been involved in half of the fatal incidents, has announced that its 2020 keyless models will come with an automatic shut-off function. It would not say whether it supported the congressional legislation.

Hyundai said that it backed the legislation and that it planned to install the auto-shut-off technology in new models, but did not offer a timeline for doing so.

A representative of Fiat Chrysler said the company was reviewing the legislation, but added that "statistics show no increase in such injuries when compared with vehicles featuring conventional rotary-key ignition systems," and that "automatic shut-off technology may have unintended consequences."

Nissan, Daimler, Mazda and Subaru declined to say whether they had a position on the legislation. Several automakers did not respond to inquiries.

While mandated safety features remain elusive, millions of cars with keyless ignitions are on the road. The feature is now standard in more than half of the vehicles made each year, according to the auto information website Edmunds.

"Those cars might be out there seven, eight, 10 years," Ms. Livingston said. "What about all those other people that might die?"

A version of this article appears in print on June 29, 2019, Section B, Page 1 of the New York edition with the headline: Keyless Cars In Spotlight After Deaths

READ 261 COMMENTS

Read the obituary for Sherry Penney, the longest-serving chancellor of UMass Boston

"Dr. Penney's vision and determination were evident early on."

Sherry Penney and James Livingston outside their Florida condo in 2014. *–Barbara D. Livingston*

By Dialynn Dwyer May 15, 2019

Sherry Penney, the longest-serving chancellor of UMass Boston, is being remembered by her family and former colleagues for her persistence and her "exceptional accomplishments" working in higher education.

"They were overcome by carbon monoxide from a car with a keyless ignition system," her loved ones wrote in her obituary.

Penney served as chancellor of UMass Boston from 1988 to 1995, as well as from 1996 to 2000. When she retired, she founded the Center for Collaborative Leadership at the university, which she served as director for until 2012.

She and her husband, who was a world authority on magnets, moved to Florida in October.

"Dr. Penney's vision and determination were evident early on," her loved ones wrote in her obituary. "When she began her doctoral program in American History in 1970, at SUNY Albany, an advisor warned her that — since she was female — a university would never hire her as a faculty member. Dr. Penney noted that her advisor wasn't ill-intentioned, just realistic. It was that moment, she later said, when she decided 'to become a university

"Sherry was a visionary with the tenacity to enact that vision," Lisa DeAngelis, director of the Center for Collaborative Leadership, said in a statement. "Sherry believed that each of us had an obligation to step into our leadership and pushed us to do just that. She will be sorely missed, but the impact of her legacy will be felt for generations to come."

A memorial service for Penney and Livingston will be held May 25 in Hingham at the First Parish Old Ship Church. A family burial for the couple will be held on a future date in Hyde Park, New York.

Read the full obituary for Penney, shared by Keyser Funeral Service, below:

> Sherry Penney and James Livingston, well-known for their exceptional accomplishments while living in Massachusetts, passed away last week at their Florida home. They were overcome by carbon monoxide from a car with a keyless ignition system.
>
> Dr. Penney, 81, was chancellor of UMass Boston and founder of the highly successful Center for Collaborative Leadership at UMB. She and her loving husband James Livingston, a retired MIT professor, author and world authority on magnets, moved to Florida last October. Though retired from UMass, Dr. Penney continued to teach women's history courses for the Suncoast Alliance for Lifelong Learning, in Sarasota Florida, and other local organizations. She passed away the night after presenting a well-received lecture titled "Stuck or Unstuck, Women in the 21st Century" for the International Women's Forum, Florida Suncoast chapter.
>
> Dr. Penney's vision and determination were evident early on. When she began her doctoral program in American History in 1970, at SUNY Albany, an advisor warned her that — since she was female — a university would never hire her as a faculty member. Dr. Penney noted that her advisor wasn't ill-intentioned, just

2000, she founded the Center for Collaborative Leadership and served as its director until 2012.

Sherry's executive experience includes serving from 1982 to 1988 as the first female vice chancellor in the SUNY system (64 campuses and 400,000 students) as Vice Chancellor for Academic Programs, Policy and Planning. She was Associate Provost at Yale University from 1976 to 1982. She taught at Union College, Yale University, SUNY Albany, and the University of Massachusetts, Boston.

Her writing covered topics in leadership, women's rights and political history. She is the author of Patrician in Politics (1974) dealing with New York politics in the 19th Century and co-author with her husband of a biography of the 19th century feminist and abolitionist Martha Coffin Wright, titled A Very Dangerous Woman: Martha Wright and Women's Rights, UMass Press (2004). With colleague Patricia Neilson she compiled Voices of the Future: Emerging Leaders in 2009. Their next book, Next Generation Leadership: Insights from Emerging Leaders, was published in 2010 by Palgrave/MacMillan.

Dr. Penney also published numerous articles in professional journals and opinion editorials in the Chronicle of Higher Education, the Boston Globe, the Boston Herald, and the Patriot Ledger.

In 2013 UMass Boston conferred professor emerita status upon her. In conveying the award, the Chancellor and Provost characterized her contributions as "transformative," citing her "invaluable contributions to making our campus a compelling force in the sphere of public higher education."

Sherry is survived by her sons, Michael and Jeff, and by her two grandchildren.

Church in Hingham (Unitarian Universalist), where the Livingstons were members for many years. A memorial service in Sarasota will be announced later, and there will be a family burial at a future date at St. James Church in Hyde Park, NY. To leave an expression of sympathy, please visit www.KeyserFuneralService.com

TOPICS: Obituaries Massachusetts Education

CAPE COD TIMES

Obituaries

James Duane Livingston

Posted May 18, 2019 at 3:01 AM

SARASOTA, FL - James Duane Livingston of Sarasota and formerly of Braintree, 88, died last week along with his wife, Sherry Penney, 81, from carbon monoxide from a new car with a keyless ignition.

He was born June 23, 1930 in Brooklyn, New York, son of James Duane Livingston and Florence Boullee Livingston. He graduated from Midwood High School, Brooklyn, in 1947 and from Cornell University in 1952 with a Bachelor of Engineering Physics degree. From Harvard University, he received a Master of Arts degree in 1953 and a Ph.D. in Applied Physics in 1956. For the next 33 years he worked as a research physicist for General Electric Corporate Research and Development in Schenectady, New York, except for semester-long leaves as Visiting Professor at Gottingen University in Germany, at Rensselaer Polytechnic Institute in Troy, New York, and at Massachusetts Institute of Technology in Cambridge, Massachusetts. From 1989 to 2008, he was a Senior Lecturer in the Department of Materials Science and Engineering at MIT.

His research at GE was mostly on the magnetic, superconducting, and mechanical properties of metals and alloys, and resulted in over 100 papers published in technical and popular-science journals, and in seven US patents. Honors received for this work included election to the National Academy of Engineering, election as Fellow of the American Physical Society and of ASM International, a Distinguished Career Award from AIME, and a Coolidge Fellowship, GE's highest scientific award. In 1965, he published his first book, Effect of Metallurgical Variables on Superconducting Properties (Pergamon Press, with H. W. Schadler). He frequently lectured on his research at universities across the US and at scientific conferences in the US, Europe, and Asia.

His teaching and research at MIT led to another 30 scientific publications, high student ratings, an undergraduate textbook, Electronic Properties of Engineering Materials (Wiley, 1999) and a popular-science book, Driving Force: The Natural Magic of Magnets (Harvard, 1996), based in part on his popular freshman advisor seminar, The Magic of Magnets. The book on magnets served as the basis for a Modern Marvels program on magnets broadcast on the History Channel. He was also honored with a Freshman Advisor of the Year award. In 2011, he published a second popular-science book, Rising Force: The Magic of Magnetic Levitation (Harvard).

Jim also had a strong interest in genealogy and history, particularly of New York State. In 1970, he was editor/author of Glenville-Past and Present, a celebration of the sesquicentennial of the town of Glenville, New York. He served on the Board of the Friends of Clermont (a state historical park) and compiled a Livingston Genealogy for their 1986 celebration of the tercentenary of Livingston Manor. He published several journal articles on New York history and on Civil War history, and was the author of A Very Dangerous Woman: Martha Wright and Women's Rights (University of Massachusetts Press, 2004, with his wife Sherry H. Penney) and Arsenic and Clam Chowder: Murder in Gilded Age New York (State University of New York Press, 2010).

Jim was a direct descendant of Robert Livingston, the First Lord of Livingston Manor, New York who arrived from Scotland in 1673. Robert was a direct descendant of King James IV of Scotland. He was Minister of Indian Affairs to King George, and established a Manor on the Hudson comprising 160,000 acres. Jim was also a relation of the important ancestor, Chancellor Robert R. Livingston of New York, one of the five drafters of the Declaration of Independence and the Minister to France who negotiated the Louisiana Purchase with Napoleon in 1803.

His other interests included church, politics, dramatics, and tennis. He served as Trustee of the First Unitarian Society in Schenectady and on their Adult Program Council, where for several years he organized their social programs. He served as Democratic Committeeman in the Town of Glenville from 1963 to 1975, and was active in numerous political campaigns, including the anti-war campaign against the Vietnam War. He ran twice for Glenville Town Council, and although he lost, he received a higher percentage of the vote than any

Democrat had received in Glenville in over forty years. On stage, he acted in several productions of the Schenectady Civic Players, the Unitarian Players, and the Pashley Players (children's theater). He also acted in over a dozen of GE's annual Christmas musicals, for which he wrote most of the librettos and song lyrics. For many years, he (with his first wife) wrote a weekly tennis column for Schenectady newspapers. He served as Regional Vice President of the Eastern Tennis Association, and worked in many capacities for the Schenectady County Tennis Association, including preparing their Golden Jubilee Booklet in 1965 and arranging local exhibitions featuring national tennis champions. He also worked for the Whitney Club and Edison Club tennis organizations, and won several local tournaments.

In 1953, he married Nancy Lee Clark of Phelps, New York, a Cornell classmate, with whom he had three daughters, Joan, Susan, and Barbara. His second marriage, in 1985, was to Sherry Hood Penney of Royal Oak, Michigan. He is survived by Joan Livingston of Boston, Susan Livingston (Henry) of Marblehead, Barbara Livingston of Malta, NY and his granddaughter, Julia Livingston of Marblehead. He is also survived by Sherry's sons, Michael (Wendy) and Jeff Penney, and the two grandchildren, Alana and Alex Penney.

Memorial Services for the couple will be held on Saturday, May 25th at 11 AM at the First Baptist Church, 85 Main Street, Hingham, MA. In lieu of flowers donations to the Union of Concerned Scientists would be appreciated. There will be a private family burial at St. James Church in Hyde Park, New York and a memorial service in Sarasota at a future date.

Ms. SCHAKOWSKY. Thank you. I think it sounds like not only did you lose precious parents, but they were great contributors. And our condolences, I am sure I speak for the whole subcommittee, are certainly with you, and that is why we are dealing with this today.

Ms. LIVINGSTON. Thank you.

Ms. SCHAKOWSKY. And now let me call on Dr. Nordstrom. You are recognized for 5 minutes.

STATEMENT OF BENJAMIN R. NORDSTROM

Dr. NORDSTROM. Thank you.

Well, good morning, Chairwoman Schakowsky, Ranking Member Rodgers, and all of the distinguished members of the subcommittee. I really want to thank you for the opportunity to testify today in support of the Impaired Driving Study Act of 2019 and the Combatting Impaired Driving Act of 2019.

So my name is Dr. Benjamin Nordstrom. I am the executive director at Responsibility.org, and we are a national nonprofit that is funded by leading distilled spirits companies to eliminate drunk driving and underage drinking. My background is that I am a board-certified addiction psychiatrist, I am a criminologist, and I also serve as a physician with the U.S. Army Reserve.

I want to applaud this committee for its longtime leadership on a whole host of auto and traffic safety issues, such as the topics being discussed today, and I really want to thank you for keeping focus on impaired driving over the years, and that is the topic that I have been asked to speak about. Now, my written testimony contains a lot of specific details, and in my oral comments what I would like to do is focus on three foundational points and then some policy recommendations.

The first point I want to make is that, while drunk-driving deaths have fallen by 50 percent since 1982 and by about 30 percent since 1991, they have really plateaued over the past 10 years. And they still account for about a third of traffic deaths, and that is around 11,000 deaths a year, each and every one of which is completely preventable. And I think, as Ms. Livingston's moving testimony points out, it is not just losing a life, it leaves a hole in families, it leaves a hole in communities, and they are all vitally important.

The second point I want to make is that drugged driving has been increasing at an alarming rate over the past decade. Now, it is really hard to give you a specific number about how much it has because the data that we have around this are fairly limited, but the information we do have is alarming.

Now, there are no national standards for obtaining toxicological data after motor vehicle crashes or impaired driving cases, and we know that obtaining these toxicological samples and running tests on them is very expensive, and as a result a lot of municipalities don't look after they ascertain that there is a presence of an illegal blood alcohol concentration, so we think that we are undercounting these things, perhaps significantly.

My third foundational point is that increasingly people are driving after having used more than one substance. We know this from toxicological evidence from people who have died in crashes. And

the reason why this behavior is so lethal is that combining drugs can lead to additive if not multiplicative effects on impairment.

So continued investment in research initiatives to better understand the scope of this problem as well as to better understand how drugs impair driving is really essential to guide not just resource allocation, but also to identify effective drug-driving countermeasures. And we fully support the proposed legislation to authorize NHTSA to study this issue further.

Drug-impaired driving is different and more complex than alcohol-impaired driving, and so a lot of the strategies that have been used in alcohol-impaired driving can be applied to this. There are going to be some specific policy approaches that need to be used specifically for this. So a comprehensive approach that includes public education, policy and enforcement initiatives is outlined in my written testimony, but we fully support the impaired-driving legislation introduced this week to authorize NHTSA funding for grants and pilot programs into drug-impaired driving prevention efforts.

So, in addition, the other things that are worth considering include supporting the creation of a national minimum standard for toxicological investigations in motor vehicle crashes and drug-impaired driving cases; allocating additional highway safety funds to improve State labs; monitoring NHTSA's progress in creating large-scale education efforts and then allocating funds appropriately to expand the efforts that are deemed effective; using screening and assessment in all cases of impaired driving so individual risk treatment needs can be identified; researching the effects of drugs on driver impairment and expanding the implementation of accountability in DWI courts for high-risk offenders; and, lastly, requiring the use of interlocks for all DUI offenders.

In conclusion, this is going to take a comprehensive approach that is going to require that we break down some of the silos that typically exist between the State and the Federal levels and building broader coalitions than we have ever had before so that we can reduce recidivism and save lives. Thank you very much.

[The prepared statement of Dr. Nordstrom follows:]

FOUNDATION FOR ADVANCING ALCOHOL RESPONSIBILITY

Testimony of Benjamin Nordstrom, M.D., Ph.D.
Executive Director
Responsibility.org

Subcommittee on Consumer Protection and Commerce
Hearing on
"Legislation to Make Cars in America Safer"
July 24, 2019

Good morning Chairwoman Schakowsky, Ranking Member Rodgers and distinguished members of this subcommittee. Thank you for the opportunity to testify before you today. My name is Dr. Benjamin Nordstrom. I am the Executive Director of Responsibility.org, an independent, national not-for-profit organization. We have been funded by distilled spirits companies since 1991 to eliminate impaired driving and underage drinking through policies, programs and research. For more information, please visit www.responsibility.org.

This week two pieces of legislation are being introduced to address impaired driving. The first bill will direct the National Highway Traffic Safety Administration (NHTSA) to conduct a study on ways to improve motor vehicle safety to address impaired driving, including alcohol, marijuana, and opioid-impaired driving. The second bill will authorize the United States Department of Transportation to provide funding for grants, pilot programs, demonstration projects, and innovative solutions to improve motor vehicle safety to address impaired driving, including alcohol, opioid, and marijuana-impaired driving. Responsibility.org supports these efforts.

I have been asked to speak to the issue of impaired driving – specifically alcohol, marijuana and opioid-impaired driving. This is an issue of tremendous national and global importance and I want to thank this subcommittee for its longstanding bipartisan leadership on this issue and many other efforts such as the other important issues being discussed here today that will improve safety on our roadways. Your past support of funding for alcohol detection technology, drug-impaired driving research and training and numerous other traffic safety efforts is critical to our nation's efforts.

Prior to joining Responsibility.org in April of this year, I was President and CEO of Phoenix House, a leading nonprofit treatment provider for individuals, families, and communities challenged by substance use disorders and related mental health conditions. I am a Board-Certified addiction psychiatrist and a criminologist. I studied at the Geisel School of Medicine at Dartmouth, the University of Pennsylvania, Columbia University Medical Center and the New York State Psychiatric Institute.

I have served on the American Society of Addiction Medicine's expert consensus panel on the use of medications in the treatment of opioid use disorders. I consulted for the State of Vermont on ways to

improve medication-assisted treatment. I also served on the steering committees for drug courts and mental health courts and was the past President of the Board of Directors for the New Hampshire Professionals Health Program. I am extremely proud to serve in the United States Army Reserve as a psychiatrist.

I have seen the tragic and deadly consequences of substance abuse, addiction and impaired driving firsthand and I truly hope that my experience and the resources of Responsibility.org and our many partners can assist you in the fight to eliminate impaired driving.

Alcohol-Impaired Driving

According to NHTSA, alcohol-impaired driving deaths account for 29 percent of the total number of traffic fatalities and while that percentage is down significantly from 50 percent in 1980 when Candace Lightner founded Mothers Against Drunk Driving (MADD), it still translated into 10,874 lives lost in 2017 and thousands of injuries. Further, nearly half of the children killed in drunk driving crashes each year were riding with the impaired driver according to NHTSA and MADD.

Responsibility.org has been proud to support the Driver Alcohol Detection System for Safety (DADSS) since 2006 and we thank this subcommittee for its support of the DADSS project. This alcohol detection technology has the potential to save more than 6,000 lives every year which would make it the most effective DUI countermeasure in history, and it would take the world a giant step forward in preventing drunk driving.

We strongly support reauthorization of the program to finish out the research and, simultaneously, efforts to deploy fleet testing. We understand the project is on track for large scale fleet testing in late 2020 with a .02 BAC directed breath testing prototype and on track to deliver the .08 BAC passive consumer versions in 2023-2025. Ultimately, there is the possibility that this technology could be expanded to detect THC as well.

We also strongly support the mandatory use of ignition interlocks for all DUI offenders, a concept that originated in New Mexico and is now law in 33 states. Kentucky became the most recent state to expand an existing program to include first offenders and legislation was introduced but has yet to pass in several states including California, Massachusetts, and Michigan. New Jersey's bill is pending the Governor's signature.

We also strongly support screening and assessment for all DUI offenders. Research shows that many DUI offenders have substance use disorders as well as undiagnosed and untreated mental health disorders that contribute to their DUI offending. For the benefits of interlock technology to be maximized, the use of the device should be coupled with screening and assessment (and if indicated, treatment) to facilitate behavior change. Ignition interlocks ensure that drinking and driving are separated but these devices are an incapacitation tool; to address an underlying substance use disorder interlock program participation should be paired with and run concurrently with treatment involvement.

DUI offenders are a unique population of justice-involved individuals. They lack criminogenic factors and the absence of an extensive criminal record (prior DUIs and other traffic infractions are common but impaired drivers often lack a history of other offenses). As a result, they tend to be identified as low risk however, these offenders are at a heightened risk to cause death or serious injury. They often have unique needs and

are resistant to change because of limited insight into their behavior. Screening and assessment with the use of a tool validated for a DUI population (currently there are only three such instruments available) is critical to accurately identify both risk level and treatment needs. It is also vital to address these issues when an offender enters the criminal justice system for a first DUI offense as this is the only way to prevent repeat DUI offenses and avoidable tragedies.

Drug-Impaired driving

Drug-impaired driving is not a new problem but in recent years it has been one of growing and significant concern. The Governors Highway Safety Association's (GHSA) 2018 report *Drug-Impaired Driving: Marijuana and Opioids Raise Critical Issues for States* presented new research to examine the impact of marijuana and opioids on driving ability and provided recommendations. The report found that in 2016, 44 percent of fatally injured drivers with known results tested positive for drugs, up from 28 percent just 10 years prior.

Results from NHTSA's National Roadside Survey (NRS) are also instructive in measuring the extent of drug-impaired driving in this country. In 2013-2014, NRS findings revealed that 22.4 percent of weekday day and 22.5 percent of weekend night-time drivers tested positive for illegal, prescription, or over-the-counter medications. (Berning et al., 2015).

The drug that has shown the largest increase in weekend night-time prevalence is marijuana. In the 2007 NRS, 8.6 percent of weekend night-time drivers tested positive for the main psychoactive ingredient in marijuana, Delta-9 tetrahydrocannabinol (THC). This number increased to 12.6 percent in the 2013-2014 NRS. That is a 48 percent increase in less than seven years. Fewer drivers were found to have opioids in their system with 5.5 percent of weekday day and 4.7 percent of weekend night-time drivers testing positive.

States that are considering legalizing the use of cannabis, or have already done so, should proactively address the potential impact that increased access could have on traffic safety. When California passed Proposition 64, considerable funding was allocated to the California Highway Patrol to train more officers over a period of several years. Other important considerations include changes to implied consent statutes to permit the use of new/emerging testing methodologies such as onsite oral fluid screening, electronic warrants, specialized law enforcement training, pre/post legalization data collection and analysis, and public education campaigns.

Opioid-Impaired Driving

Opioids are present about half as frequently as marijuana in fatal crashes and opioid presence has increased in the past decade. (GHSA 2018).

As cited in the 2018 GHSA report, in 2016, 1,064 drivers, or 19.7 percent of the drug-positive drivers, were positive for some opioid, slightly less than half as many as were positive for marijuana. The most frequent opioids were oxycodone (OxyContin, Percodan, Percocet) at 20 percent of all opioids, hydrocodone (Vicodin, Lortab, Lorcet) at 19 percent, morphine at 14 percent, fentanyl at 11 percent, and methadone at 8 percent. In 2006, 679 drivers, or 17 percent of drug-positive drivers, were opioid-positive.

Many studies document that opioids can cause drowsiness and can impair cognitive function, both of which can have obvious effects on driving (Dhingra et al., 2015; Strand et al., 2016).

Estimating the effect on crash risk is even more difficult for opioids than for marijuana but research has shown that opioids can increase crash risk by a factor of no more than about 2. Of course, these statistics do not factor in an overdose while behind the wheel.

Boy, 4, Found in SUV With Adults Who Allegedly Passed Out on Heroin; Ohio Police Post Pics

This photo was published a few years ago at the height of the opioid epidemic.

An issue with opioid-impaired driving is the lack of education around the dangers of driving after consuming prescription drugs. There is a huge opportunity for collaboration with health care practitioners and pharmacists on this issue. In a 2017 National Safety Council survey of drivers age 21 and above, 17 percent reported taking a prescription opioid in the past month. Of those who did, 64 percent said that they felt it was safe to drive.

The FDA falls short here in its prescribing advice for OxyContin which says "Warn patients not to drive or operate dangerous machinery unless they are tolerant to the effects of OxyContin and know how they will react to the medication" and the package insert says "Do not drive, operate heavy machinery, or participate in any other possibly dangerous activities until you know how you react to this medicine. OxyContin can make you sleepy." (FDA, 2018a; 2018b).

In February of this year, The AAA Foundation for Traffic Safety and the GHSA held a summit on prescription drug-impaired driving and invited stakeholders from traffic safety and health care to collaborate on the issue. Additionally, the AAA Foundation for Traffic Safety launched its Roadwise Rx website: http://www.roadwiserx.com/ to help people understand how prescription drugs can affect their driving abilities.

The Texas Department of Transportation (TxDOT) and GDC Marketing and Ideation conducted quantitative and qualitative research on this topic and presented it at the 2018 Lifesavers Conference in San Antonio, Texas. The presentation entitled, *Attitudes and Awareness Surrounding Driving Under the*

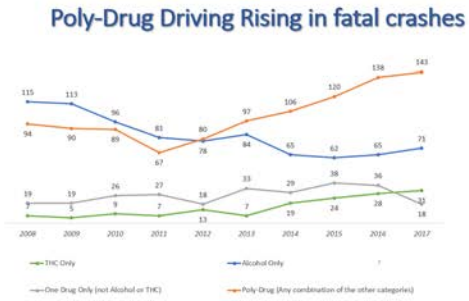
Influence of Impaired Prescription Drugs, further shows the need for public education and enhanced partnerships as evidenced by the following findings:

- Driving after using prescription drugs was viewed as less dangerous than other driving behaviors.
- 55 percent of Texans surveyed believed driving under the influence of impaired prescription drugs had a lesser penalty (or no penalty at all) than the penalty for drunk driving.
- Those surveyed believe that if drugs are prescribed by a doctor, the same DUI rules do not apply.
- Doctors and pharmacists aren't always warning patients.
- Warnings on pill bottles are not clear.

Polysubstance-Impaired Driving

In a recent presentation to state legislative leaders, Sergeant Alan Ma from the Denver Police Department shared that in Colorado there has been a 300 percent spike in polysubstance-impaired driving cases between 2013-2016 with alcohol and THC being the most common combination.

Polysubstance-impaired driving (driving after consuming a combination of drugs or alcohol and a drug/drugs) is a major concern. Washington State recently analyzed drug and alcohol use among drivers involved in fatal crashes in its 2016 Fatality Analysis Reporting System (FARS) data *(Grondel et al., 2016)*. The data also showed that in 2012, polysubstance-impaired drivers became the most prevalent type of impaired drivers involved in fatal crashes and since that time the number has increased an average of 15 percent each year. By 2016, there were more than twice as many poly-drug drivers than alcohol-only drivers and five times more than THC-only drivers.



Source: 2016 Washington Fatality Analysis Reporting System (FARS) data

I am joined here today by Colleen Sheehey-Church, our Public Policy Liaison. She testified before this subcommittee last year in her previous role as MADD's National President. Her son Dustin was killed in an impaired driving crash involving a young driver who had consumed alcohol, cannabis and PCP. She has submitted a statement for the record today and I am grateful for her advocacy and expertise.

Polysubstance-impaired driving is especially dangerous as the combination of substances has a multiplicative effect on driver impairment. However, it is becoming increasingly commonplace.

You may recall that Jennifer Harmon, a forensic toxicologist from Orange County, California also testified at last year's hearing. She stated that of the non-alcohol involved traffic related cases that were drug positive in Orange County, 40 percent had three or more drugs in their system.

What's more, she shared that 45 percent of apprehended DUI drivers tested positive for at least one drug other than alcohol; 29 percent of drivers with BACs of .08 or above tested positive for at least one additional drug; and 56 percent of fatally-injured drivers tested positive for at least one drug (nearly half of those include alcohol and/or THC).

In speaking with law enforcement officers, prosecutors and judges from across the country, we hear a common thread: Most impaired drivers arrested these days have more than one substance in their system. That has led Responsibility.org to add polysubstance-impaired driving to what we call the category of highest-risk impaired drivers along with repeat DUI offenders and high BAC drivers at .15 and above because they pose the greatest crash risk on our roadways and account for a disproportionate number of impaired driving deaths.

Last year our Vice President of Criminal Justice Programs and Policy, Erin Holmes, testified before this Subcommittee on the reasons why drugged driving and polysubstance-impaired driving are underreported. Her testimony remains available online for a deeper dive into this issue and we can certainly address those issues today if desired, but I'd like to detail activities Federal and state governments are undertaking to tackle this issue as well as actions the United States Congress can take to save lives and ultimately eliminate impaired driving

Here's a very important point: Impairment is impairment. The substance(s) involved is not known at the time of the traffic stop. The law enforcement officer makes the stop based on dangerous driving behavior. As NHTSA's new public education campaign says – *If you feel different, you drive different*. The nation's impaired driving program focus need not shift to marijuana and opioids but instead must expand its critical focus on alcohol to include all impairing substances. As stated in the GHSA report, some new tactics are required to detect impaired drivers. They join with and build on the familiar methods to address alcohol-impaired driving.

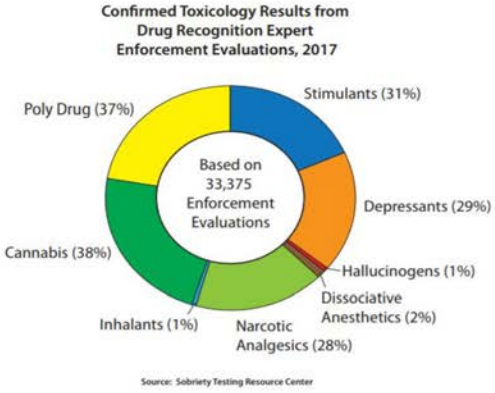
Making Progress But There Is Room For Improvement

Specialized Law Enforcement Training

Responsibility.org has been proud to partner with the GHSA in issuing two reports on drug-impaired driving as well as teaming up with state highway safety offices, Shaquille O'Neal and the National Sheriffs Association to increase specialized training for law enforcement to detect drug-impaired drivers. To date, we have awarded law enforcement grants to 15 states (Florida, Idaho, Illinois twice, Massachusetts, Michigan, Minnesota, Montana, Nevada twice, New York, Rhode Island, South Dakota, Texas, Vermont, Washington, and Wisconsin) to train officers in Advanced Roadside Impaired Driving Enforcement (ARIDE) and Drug Recognition Expert (DRE) training. We have also sponsored the National Sheriff's Association's annual ARIDE training for three years in a row.

Last year, NHTSA amplified these training efforts with $100,000 in grants administered through the GHSA to Delaware, Guam, Kentucky, Massachusetts, Oklahoma, and West Virginia. Just this month NHTSA and the International Association of Chiefs of Police (IACP) announced a new $2.3 million grant program to fund ARIDE and DRE training to law enforcement, judges and prosecutors. The training grants are necessary because there is no BAC for THC or other drugs. Drug-impaired driving enforcement relies on law enforcement identification and detection of drug impairment.

The DRE Program was first established in the 1970s when the Los Angeles Police Department collaborated with medical professionals to develop a standardized procedure that could assist officers in identifying drug impairment. These efforts led to the development of a 12-step protocol and Drug Recognition Experts (DREs). To be certified, DRE candidates undergo more than 100 hours of intensive classroom instruction and formal training, including field certification. Also, DREs must continue their training and be re-certified every two years. Currently there are more than 9,000 credentialed DRE officers across the country. NHTSA is currently examining how many DRE officers are needed and hopes to create an allocation model to share with the states as a guide.



Electronic Warrants

For both alcohol and drug-impaired drivers, it is often necessary to obtain a blood sample. Many drunk drivers refuse a BAC test which leaves the officer no choice but to pursue a blood test. Drug tests require blood draws in most cases which can take several hours. Dr. Darrin Grondel, Chairman of the GHSA and Director of the Washington Traffic Safety Commission says the average time to obtain a blood sample in his state is 237 minutes. During this time, critical impaired driving evidence is dissipating.

A search warrant from a judge is required for a non-voluntary blood draw except in rare circumstances. Electronic warrants (e-warrants) can speed up this step considerably, allowing officers to request and receive warrants in their patrol cars on tablets, smartphones, or computers. Currently, 45 states include language either in legislation or in court rules allowing e-warrants (Borakove and Banks, 2018). Legislation

isn't necessary but it can create consistency. Many law enforcement agencies are currently considering transitioning to an electronic warrant system to improve efficiency.

There is another important reason for law enforcement agencies to consider implementing electronic warrants. In recent years, the United States Supreme Court has repeatedly addressed interplay of the Fourth Amendment and implied consent laws. In Missouri v. McNeely (2013) and Birchfield v. North Dakota (2016) the court ruled that blood testing requires a warrant if the DUI suspect refuses to provide a sample on a voluntary basis. In Mitchell v. Wisconsin (2019) the court examined Fourth Amendment and implied consent issues again. In each of these cases, the Court noted that advancements in technology make it possible to obtain warrants quickly and the natural dissipation of alcohol did not create a per se exception to the Fourth Amendment's warrant requirement based on exigent circumstances.

In 2018, Responsibility.org and the Justice Management Institute produced a guide to help jurisdictions set up these electronic warrant systems and featured case studies from Arizona, Delaware, Minnesota, Texas and Utah where the practice is in place and working well.

Dr. Grondel is working with a team of experts in Washington to design an electronic DUI packet to increase efficiencies in the system. The packet would include an electronic warrant, the DRE evaluation, the information from the barcoded license and registration. The electronic information will speed up the arrest process, improve data collection, and will allow more efficiencies in the adjudication process.

Law Enforcement Phlebotomy

In an effort to further increase efficiency and reduce the time it takes to obtain blood draws from impaired driving suspects, Washington's Traffic Safety Commission is providing grant funds that allow for the training of law enforcement officers as medical phlebotomists with the help of the Washington Department of Health through a 50-hour course. The officers, once trained, are no different than a lab technician at a primary care office or a hospital and in fact they could work off hours in those settings.

Currently there are 10 agencies (a total of 40 officers) that have been trained in phlebotomy and the Washington State Patrol is developing a pilot program. The training is especially timely and important because Washington's hospitals have a new policy that requires DUI suspects to be admitted to the hospital and triaged before having their blood drawn. Unfortunately, this protocol adds hours to the process and results in thousands of dollars being charged to law enforcement while DUI evidence dissipates.

The training of law enforcement officers in phlebotomy is not a new idea. In fact, it began in Arizona in 1995 when the Highway Patrol Division of the Arizona Department of Public Safety (DPS) had two sergeants trained as phlebotomists to draw blood from impaired driving suspects. Both sergeants were certified paramedics prior to becoming certified phlebotomists. This effort was so successful that it led to a statewide law enforcement phlebotomy program. In 2009, Idaho developed a statewide law enforcement phlebotomy program based on the successful Arizona model.

Oral Fluid Testing

Oral fluid tests can identify the presence of drugs at roadside or in a police station and provide objective data to help establish probable cause. They are not currently used in the United States in an evidential capacity. Like preliminary breath tests, oral fluid tests are part of a broader impaired driving investigation and should be used as an onsite screener. These devices are quick and easy to use, minimally invasive, and indicate recent drug use. Multiple studies have found these devices to be reliable and valid. Australia and the United Kingdom have been using this roadside drug testing technology for years and many law enforcement agencies in Canada have opted to use the devices since the passage of a recreational cannabis law in the fall of 2018.

Jurisdictions across the United States (including Alabama, California, Colorado, Florida, Kansas, Michigan, Oklahoma, Vermont) have piloted various devices to assess their viability. These pilots have concluded that oral fluid devices provide good information to law enforcement regarding the presence of active drugs in drivers' systems. The largest pilot program underway in the United States is in Michigan. Legislation passed in 2016 authorized a small five county pilot program. The results were promising enough to recommend the pilot be extended and expanded across the state.

In a study conducted in Miami-Dade County, 39 percent of drivers who were found to have a BAC above .08 also tested positive for the presence of drugs. In another pilot in Dane County, WI, nearly 40 percent of the subjects with BACs exceeding .10 screened positive for one or more drug categories in both oral fluid and blood. In a real-world setting, most of these individuals would be identified as only alcohol-impaired drivers because usually testing stops if a driver has an illegal BAC level. The problem with this practice is that many drug-impaired drivers go undetected, the magnitude of the drugged driving problem is not accurately captured and failure to identify drug use misses an opportunity to identify and address an underlying cause of impaired driving behavior and could result in recidivism.

Toxicology Labs

A DRE officer needs to provide comprehensive documentation on impaired driving cases, but it is just as important to have high quality forensic toxicology results for prosecution of impaired driving cases. Toxicology results provide the link between the observations of the subject's driving and behavior and their drug use. However, some states do not have the capacity to process all the blood tests produced by impaired driving arrests and backlogs can result in long delays or case dismissals.

Consider the situation in Washington State where one centralized toxicology lab is used for all impaired driving blood tests. Currently it can take 6-7 months before the lab begins to process the blood sample and 10 months before the result is sent to court. A request has been presented to the legislature for additional funding to hire more personnel and reduce the backlog to avoid dismissing cases. In Colorado, legislation was passed this year to increase funding for processing blood samples.

	Time to begin processing	Turnaround time (median)	Backlog
Prior to 2017	Within 1 day of receipt	19 days	None
Current	~ 4-6 months	~7-9 months	3,000+ cases

States should be able to allocate additional highway safety funds to improve the quality of state labs. States should be afforded the flexibility to hire additional lab staff and purchase lab instrumentation to accommodate an increased number of impaired driving arrests.

Another important issue to address is the need for standardized drug testing. There is a lack of consistency in testing from one jurisdiction to another. Data is limited because some states test a very small percentage of fatally injured drivers for the presence of drugs. Additionally, labs use different test panels with varying cutoff levels. Inconsistent testing and the lack of minimum standards makes it difficult for NHTSA data to be used to compare states, identify trends or generalize findings.

Dealing with High-Risk Impaired Drivers

All DUI offenders pose a high risk on the roads, yet some are at a higher risk than others for re-offending and/or for causing a crash due to greater levels of impairment. These offenders often need more intensive and individualized interventions. The bottom line is that cookie-cutter approaches do not work with this population and failure to take a comprehensive approach can result in future recidivism.

Repeat DUI offenders cause about one-third of impaired driving deaths each year, a number that has remained relatively unchanged over the years. Most, if not all, of these offenders have a substance use disorder and are at high risk of re-offending. According to research from the Cambridge Health Alliance at Harvard Medical School, nearly half of repeat DUI offenders have a co-occurring mental health disorder in addition to a substance use disorder. It is common for the mental health issues to be missed and go untreated. Due to numerous loopholes that exist in the criminal justice system, these offenders often go unmonitored and fail to comply with their sentences and supervision conditions. In many instances, they are not held accountable nor do they face consequences for their non-compliance. This creates a dangerous cycle that must be broken.

Some of these repeat offenders are at high risk of recidivism and have high treatment needs. For them, a DWI court is likely the best option for changing their behavior. Studies have consistently shown that DWI court participants have better outcomes compared to offenders who are subject to traditional probation. In fact, courts that strongly adhere to the DWI court model have been found to reduce recidivism by as much as 60%. The research on the cost benefits of DWI courts is also compelling. A multisite evaluation of Minnesota DWI courts determined that the program produced a 200 percent return on investment (NPC Research, 2014). The combined savings of seven DWI courts exceeded $1.4 million over a two-year period. Unlike the drug court model, offenders who participate in DWI courts do not have their convictions expunged upon successful completion of the program.

For other repeat DUI offenders with a high risk of recidivism but low treatment needs, they may only require intensive monitoring and regular check-ins with the court. Judge Richard Vlavianos of Stockton, California has had impressive results in reducing recidivism among repeat offenders by screening and assessing them to determine if they need monitoring or monitoring and treatment. He calls it "accountability court" and most of his offenders (70 percent) only need monitoring and to be held accountable for complying with their sentences. The other 30 percent fall into the traditional DWI court model. This dual track approach has made it possible for Judge Vlavianos to serve many more offenders than a more traditional DWI court and to dramatically reduce repeat DUI offenses and alcohol-impaired crashes in San Joaquin County.

In a 2018 Los Angeles Times article that profiles the reductions in crime that have occurred in San Joaquin County, Judge Vlavianos said, "The job of the court is to screen, assess and refer. Because we're never going to get a behavior change if we don't address what's bringing them in." Judge Vlavianos is a longtime member of our Judicial Advisory Board and was just named a NHTSA Regional Judicial Outreach Liaison. Though his court deals primarily with repeat offenders, he will take high-BAC drivers and polysubstance-impaired drivers who are referred from other courts.

Other impaired driving offenders at very high risk also include high BAC offenders (.15 and above) who are involved in more than 60 percent of the alcohol-impaired driving deaths each year and polysubstance-impaired driving offenders whose crash risk is significantly increased. For these offenders, practitioners must collaborate across disciplines, work together to identify the root cause of the offending and determine what type of criminal sanctions are most likely to prevent future impaired driving offenses.

Training for Prosecutors and Judges

Prosecutors and judges have the same educational needs as other practitioners when it comes to impaired driving. An officer's description of a drug-impaired driver's roadside behavior will be different than that of a drunk driver. NHTSA has been working to enhance the ability of the criminal justice system to manage drug-impaired driving, with improved coordination among prosecutors, toxicologists, judges, and programs that leverage Law Enforcement Liaisons (LELs), Traffic Safety Resource Prosecutors (TSRPs), and Judicial Outreach Liaisons (JOLs).

NHTSA funds prosecutor training through the National Traffic Law Center (NTLC) and the National Center for DWI Courts (NCDC). Information is available from the National District Attorneys Association (NDAA) and

NCDC. Most states have at least one TSRP who can help provide education and training to prosecutors. Additionally, NHTSA's regional Judicial Outreach Liaisons provide support to judges across the country; some highway safety offices also fund a state specific JOL. This education is critically important, and we encourage its continuation and expansion. In 2019, Responsibility.org launched an online DUI prosecutor course with NDAA and the National Center for State Courts. The free course qualifies for continuing legal education (CLE) credits in every state where they are required and is designed to assist prosecutors with DUI cases. We hope to update it soon to include drug-impaired and polysubstance-impaired driving prosecutor education.

Researching the Effects of Cannabis on Driver Impairment

This July, California enacted Assembly Bill 127 that will allow research on the effects of cannabis impairment on driving performance. Due to cannabis' designation as a Schedule I controlled substance, agencies like the California Highway Patrol (CHP) have been limited in the research that they could conduct. The new law gives CHP greater authority to do experimental research that involves dosing subjects and then allowing them to operate a motor vehicle under direct supervision in a controlled environment to gain a better understanding of the effects that cannabis has on driving. Other academic institutions are also actively engaged in impaired driving research that includes studies that are designed to identify potential behavioral or cognitive tests to identify cannabis impairment.

Responsibility.org is funding grants in Nevada and Massachusetts in 2019 to conduct similar research and training for law enforcement and prosecutors.

Public Education

In 2018, NHTSA declared drug-impaired driving a national priority and held a series of regional meetings across the country to elevate the dialogue on the issue, identify best practices and transfer knowledge. Later in the year, NHTSA launched its *If You Feel Different, You Drive Different* campaign to educate Americans about the dangers of driving while impaired by drugs and to promote safer choices. A key message in the campaign is that any time you consume a substance that makes you feel different; you aren't safe to drive, and impaired driving isn't a mistake; it's a crime.

The national campaign joins several successful state public awareness campaigns. Colorado has had success with their *Drive High, Get A DUI* campaign and *The Cannabis Conversation*. The Colorado Department of Transportation (CDOT) has been a leader in drug-impaired driving education and their experience is instructive for other highway safety offices and Federal agencies.

Recommendations for Congress

There are numerous ways for Congress to support states in the fight against impaired driving:

- **Require screening and assessment of ALL DUI offenders:** If you don't diagnose an illness, you can't treat it and cure it. The same is true for DUI offenders. All impaired drivers should be screened and assessed for substance use disorders and mental health disorders to prevent repeat DUI. Root causes of offending must be identified and dealt with. Assessment instruments should also be validated among the impaired driver population. Currently there are only two such instruments that are available free of cost – The Computerized Assessment and Referral System (CARS) created by Harvard Medical School and funded by Responsibility.org and the National Institute on Alcohol Abuse and Alcoholism (NIAAA) and the Impaired Driver Assessment (IDA) created by the American Probation & Parole Association (APPA) and funded by NHTSA. The CARS tool has been translated into Spanish this year thanks to Judge Robert Anchondo and his staff at his DWI Court in El Paso, Texas.

- **Reauthorize DADSS to ensure development of the technology is achieved as originally intended**: Fast, accurate, reliable, affordable and seamlessly installed into new vehicles to detect drunk drivers and prevent the car from moving but without affecting normal driving behavior. (This is on track for 2023/2024 breath-based and 2025 touch-based). Currently only the breath-based technology is deployable at a .02 BAC level and is not a passive system yet – suitable for fleet testing only.

- **Resources for criminal justice practitioners: It is critical to fund all aspects of the system to prevent system overload and ensure arrests can result in speedy trials.**

- **Provide appropriations for ongoing, specialized law enforcement training** including programs that teach officers how to identify the signs and symptoms of drug impairment. This includes Advanced Roadside Impaired Driving Enforcement (ARIDE) and the Drug Evaluation and Classification (DEC) Program and law enforcement phlebotomy programs.

- **Provide appropriations to law enforcement agencies to implement electronic warrant systems** to make the warrant acquisition process more efficient, secure evidence in a timely manner, limit test refusals, reduce errors, and maximize law enforcement resources.

- **Promote the allocation of funds for DUI-only law enforcement initiatives** like dedicated DUI officers or DUI teams that go beyond the usual high visibility enforcement efforts (e.g., sobriety checkpoints and saturation patrols).

- **Provide appropriations for law enforcement, prosecutor, and judicial training** to better educate them on impaired driving issues. Cross-training opportunities are preferred.

- **Improve offender compliance –** DUI offenders re-offend because they can. They know the risk of getting caught is low. **Only about 25% of offenders ordered to install an ignition interlock device do.** The higher risk offenders need to be monitored – and if needed – treated.

  - **Incentivize the use of accountability courts** (e.g., San Joaquin County Court Model) and intensive supervision efforts.

  - **Increase the use of ignition interlocks, 24/7 programs, and other offender monitoring programs.**

  - **Provide appropriations for DWI Courts, intensive supervision programs, and treatment programs** that are proven to be effective in supervising and treating high-risk impaired drivers.

  - **Provide appropriations for the creation of multi-jurisdictional impaired driving task forces** to increase collaboration among various facets of the DUI system and implement innovative solutions and a comprehensive, systems-based approach that considers all aspects of the issue.

  - When dealing with a high-risk, high-needs drug-impaired driving offender, require participation in a DWI court not a drug court.

- **Improve data and technology:**

  - **Continue appropriations to NHTSA to administer the National Roadside Survey** to provide critical data on the prevalence of drug-impaired driving.

- **Support NHTSA's work on oral fluid research** and prioritize the creation of minimum guidelines for these devices (like what has been done for breath testing instruments and ignition interlocks). NHTSA is currently researching the feasibility of incorporating on-site oral fluid devices in criminal justice processes.

- **Support the ongoing development and testing of new drug detection technologies** (e.g., marijuana breathalyzers, transdermal devices).

- **Support the creation of national minimum standards for toxicological investigations** in motor vehicle crashes and drug-impaired driving cases.

- **Provide appropriations to improve the quality of state labs** including funds to hire additional lab staff and purchase lab instrumentation (such as liquid chromatography-tandem mass spectrometry (LC-MS/MS) to perform more advanced drug analysis).

- **Encourage ongoing data collection** using current data available (including crash, arrest, toxicology, convictions, public perceptions/attitudes on driving, healthy youth surveys, etc.). Collect data on a regular basis to track trends and prevalence data. Jurisdictions that have yet to legalize should also begin collecting baseline data as this will allow them to make pre and post comparisons following the implementation of new laws to measure what impact they have on traffic safety.

- **Continue to fund public education campaigns** to dispel misperceptions, change attitudes, reset societal norms and change behavior. Congress can provide appropriations to expand state and Federal public outreach efforts if deemed effective.

- **Incentivize new laws:**

  - **Support the establishment of zero tolerance laws for drivers under the age of 21 who drive with illicit or impairing drugs in their systems**, creating parity with existing zero tolerance alcohol laws.

  - **Improve existing incentive grants for ignition interlock laws.** Many states have mandatory laws for all DUI offenders, but very few qualify for incentive grant funds.

In conclusion, a comprehensive approach must be employed in order to eliminate impaired driving. The problem is multi-faceted and, as previously noted, is frequently not limited to the use of a single impairing substance. We must be willing to knock down silos at the state and Federal levels and involve non-traditional partners as we seek innovative solutions reduce recidivism and save lives.

About Responsibility.org

Responsibility.org is a national not-for-profit that aims to eliminate drunk driving and work with others to end all impaired driving, eliminate underage drinking, and empowers adults to make a lifetime of responsible alcohol choices as part of a balanced lifestyle. Responsibility.org is funded by the following distillers: Bacardi U.S.A., Inc.; Beam Suntory Inc.; Brown-Forman; Constellation Brands, Inc.; DIAGEO;

Edrington, Mast-Jägermeister US, Inc.; Moet Hennessy USA; and Pernod Ricard USA. For over 27 years, Responsibility.org has transformed countless lives through programs that bring individuals, families and communities together to inspire a lifetime of responsible alcohol choices. To learn more, please visit Responsibility.org.

Supporting materials:

- American Association of Motor Vehicle Administrators (2018). Ignition Interlock Program Best Practices Guide.
- AAA Foundation for Traffic Safety (2018), *Countermeasures Against Prescription and Over-The-Counter Drug-Impaired Driving.*
- EAZE and Lyft. 2019. "Perceptions on Impairment: Cannabis Consumers in Focus."
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- Hedlund, J. (2018). *Drug-Impaired Driving: Marijuana and Opioids Raise Critical Issues for States*. Washington, DC: Governors Highway Safety Association.
- Holmes, E. (2018). Witness testimony from House Energy and Commerce Subcommittee on Digital Commerce and Consumer Protection Hearing "*Examining Drug-Impaired Driving.*"
- Los Angeles Times (2018). "Crime once plagued San Joaquin County, but now its jail has empty beds. Here's what it did right."
- MADD (2018). Child Endangerment Report.
- Michigan State Police (2019). Oral Fluid Roadside Analysis Pilot Program.
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- NHTSA and National Safety Council. (2004). *Priorities and Strategies for Improving the Investigation, Use of Toxicology Results, and Prosecution of Drug-Impaired Driving Cases: Findings and Recommendations*.
- Olson, J. (2019). Law Enforcement Phlebotomy presentation. Phlebotomy Programs that Work Lifesavers Conference Workshop.
- Responsibility.org (2017). *Driving Under the Influence of Drugs: A Checklist for Policymakers*.
- Ritter, R. (2019). NHTSA Drug-Impaired Driving Initiative presentation. Addressing the Changing Landscape of Drug-Impaired Driving Lifesavers Conference workshop.
- Flannigan, J., Talpins, S., & Moore, C. (2017). Oral fluid testing for impaired driving enforcement. *Police Chief Magazine,* January issue, 58-63.

Suggested additional reading:

- Hedlund, J. (2017). *Drug-Impaired Driving: A Guide for States.* Washington, DC: Governors Highway Safety Association. https://www.ghsa.org/sites/default/files/2017-07/GHSA_DruggedDriving2017_FINAL_revised.pdf

Ms. SCHAKOWSKY. Thank you.

And now let me ask Ms. Chase to take 5 minutes and give her statement.

STATEMENT OF CATHERINE CHASE

Ms. CHASE. Good morning, Chairwoman Schakowsky, Ranking Member McMorris Rodgers, and members of the subcommittee. I am Cathy Chase, president of Advocates for Highway and Auto Safety. Celebrating our 30th anniversary this year, Advocates is a unique and successful coalition of insurers, consumers, public health and safety groups dedicated to preventing motor vehicle crashes, which are responsible for approximately 100 deaths and 7,500 injuries each day, on average.

Thank you for convening this important hearing to address issues that will protect and keep families whole. Steps can and must be taken to protect children from tragic heatstroke incidents in cars, to curb the dangers associated with keyless ignition systems, and to reduce impaired driving. We are here today because people are not infallible. We are, however, inventive. There are current, proven solutions to these issues.

Tragically, the problem of hot cars has taken the lives of at least 21 children this year, including 12 children during the short time since this subcommittee held a hearing on this issue in May. Moreover, we are in the dog days of summer and most of the country just experienced a major heat wave, punctuating the need for swift action.

Neuroscience experts have explained that common circumstances such as stress, fatigue, or change in routine can all lead to this serious and deadly outcome. Technology is available now that can detect the presence of a child in a vehicle and alert drivers and caregivers. The ability of the system to detect is a critical component, especially since on average over 25 percent of vehicular heatstroke deaths happen as a result of the child getting into the car on their own.

I would like to now show a brief video to highlight this feature from just a couple companies. I have been told that the audio might not work, but I still think it is important that you see that the technology is in existence.

[Video shown.]

So here, the detection system is in the roof—you can't see it—and the alarm system was going off. If you could hear this, it is quite loud and there are multiple components. There is an audio, a visual, and also an app. In this instance, the child is getting into the car unbeknownst to the parents. The dad gets out. There is the visual. And now what you can't hear is a very loud honking noise because the car detected that the child was hiding in the car.

As you can see from the clips, lives can be saved now using technology on the market today which, according to suppliers, costs approximately 20 to 40 dollars. And the cost will go down even further once it becomes standard equipment as we have experienced with other safety technologies like rearview cameras and airbags. We commend Chairwoman Schakowsky along with Representatives Tim Ryan and Peter King for introducing the Hot Cars Act and call on Congress to swiftly enact it.

Secondly, the invention of keyless ignition systems, also known as push-button starts, has resulted in unintended deadly consequences. This feature is now standard in nearly two-thirds of vehicles sold, up from just over 10 percent in 2008. Without needing to turn and remove a key to disengage the vehicle, drivers can park their car in the garage, exit the car, and go inside their home with their key in hand or handbag, all the while thinking they have turned the car off. This scenario can lead to a fatal level of carbon monoxide being emitted from the parked, running car.

Stories like this continue to devastate families across the country, including Susan who bravely recounted the recent deaths of her parents. The PARK IT Act will require new cars with keyless ignitions to have an automatic shutoff before carbon monoxide can accumulate to a dangerous level.

Additionally, the legislation would help prevent vehicle rollaways, which happen when a driver exits the car while it is still in gear. These incidents can lead to a driver being struck by their own vehicle or the car continuing unabated, potentially striking objects or people in its path. We applaud the leadership of the chairwoman and other cosponsors in introducing the PARK IT Act and urge Congress to enact it.

Thirdly, impaired driving continues to kill more than 10,000 people every year. My written testimony includes a number of actions Congress should take, including getting passive sensor technology such as DADSS into cars, incentivizing States to lower their BAC laws and enact all offender ignition interlock laws, and providing funds to accelerate research, training, and solutions to the growing problem of drug-impaired driving.

In conclusion, these remedies address a few of the fallibilities of humans. Some claim that driverless cars will be the panacea, and we hope they are correct. However, when this subcommittee decides to consider driverless car legislation, we urge you to require safeguards, including minimum performance standards for technologies to protect those in AVs and everyone around them. Proven technologies in addition to the ones being discussed today such as automatic emergency braking, blindspot detection, and lane departure warning should be in all new cars now. They will both pave the way toward AVs and save lives along the way.

Advocates looks forward to continuing to work with the subcommittee to make cars, drivers, and roads in America safer. Thank you so much.

[The prepared statement of Ms. Chase follows:]

STATEMENT OF CATHERINE CHASE
PRESIDENT
ADVOCATES FOR HIGHWAY AND AUTO SAFETY

ON

"LEGISLATION TO MAKE CARS IN AMERICA SAFER"

SUBMITTED TO THE

UNITED STATES HOUSE OF REPRESENTATIVES
COMMITTEE ON ENERGY AND COMMERCE
SUBCOMMITTEE ON CONSUMER PROTECTION AND COMMERCE

JULY 24, 2019

Introduction

Advocates for Highway and Auto Safety (Advocates) is a coalition of public health, safety, and consumer organizations, insurers and insurance agents that promotes highway and auto safety through the adoption of federal and state laws, policies and regulations. Advocates is unique both in its board composition and its mission of advancing safer vehicles, safer motorists and road users, and safer roads.

Deaths and Injuries on Our Natiou's Roads Remain Unacceptably High

In 2017, more than 37,000 people were killed and 2.7 million were injured in motor vehicle crashes.[1] Estimates for 2018 show a slight projected decrease in crash fatalities of approximately one percent. These figures do not account for non-traffic motor vehicle crashes and incidents that happen off of public roads, which claim thousands of additional lives and result in tens of thousands more injuries each year. Moreover, crashes impose a financial toll of over $800 billion in total costs to society and $242 billion in direct economic costs, equivalent to a "crash tax" of $784 on every American. This incredibly high level of carnage and expense would not be tolerated in any other mode of transportation.

Available Commonsense and Cost-Effective Solutions

While far too many lives are lost and people are injured on our Nation's roads each year, proven solutions are currently available that can prevent or mitigate these senseless tragedies. The National Highway Traffic Safety Administration (NHTSA) currently values each life lost in a crash at $9.6 million. Each one of these preventable losses not only irreparably harms families and communities, but they also impose significant costs on society that can be avoided. While we are optimistic that in the future autonomous vehicles (AVs) may bring about meaningful and lasting reductions in motor vehicle crashes, that potential remains far from a near-term reality. Yet, we have actions that can be taken immediately on the path to fully driverless cars. We urge you to take swift action on the following recommendations for safety advances.

Pass the Hot Cars Act of 2019 (H.R. 3593) to Prevent Vehicular Heatstroke Deaths

Already this year, at least 21 children have died in hot cars. During the short period of time from when this Subcommittee held its May 23 hearing on this issue, which featured compelling testimony by Advocates' Consumer Co-Chair Janette Fennell, Founder and President of KidsAndCars.org, and the heart-wrenching account of Miles Harrison unknowingly leaving his son, Chase, in his car, 12 children have died. While a majority of the overall cases of vehicular heatstroke deaths involve a child being unknowingly left in a vehicle, over 25 percent result from children getting into a car on their own, on average. Last year a record number of annual vehicular heatstroke fatalities occurred, with at least 52 children being killed. Since 1990, approximately 900 children have been killed and many have been seriously and permanently injured in these tragic and preventable circumstances.[2] (See Attachment A.)

[1] Statistics are from the U.S. Department of Transportation unless otherwise noted.
[2] Statistics provided by KidsAndCars.org.

While it may be unthinkable that a child, especially an infant or toddler, could be left in a car, it is an all-too-frequent problem. Neuroscience experts and other scientific researchers have shown that common circumstances such as work demands, stress, fatigue or change in routine can all lead to this injurious and deadly outcome. According to Dr. David Diamond, Professor in the Departments of Psychology, Molecular Pharmacology and Physiology at the University of South Florida, "This phenomenon must be explained from a brain science perspective, not one that blames parents for being negligent."[3] (See Attachment B.) Even the most loving, caring and responsible parents and caregivers can succumb to these conditions and make this mistake. For example just two weeks ago on July 9th, the three-year-old son of a professor at the University of Southern Indiana (USI) died in a hot car on the USI campus after the professor forgot to drop him off at the USI Children's Learning Center.[4] People are not infallible; that's why vehicles already have reminder systems for headlights, keys, doors and regular maintenance. It is time to take action on requiring the most vital alert of them all, one that can save a life.

Fortunately, legislation has been introduced to solve this problem. Advocates thanks and commends Chairwoman Jan Schakowsky (D-IL), Congressman Tim Ryan (D-OH) and Congressman Peter King (R-NY) for sponsoring the bipartisan Hot Cars Act of 2019 (H.R. 3593) which requires all new cars to be equipped with a detection system to alert that a child is unattended inside the vehicle. The bill directs the United States Department of Transportation (U.S. DOT) to issue a final rule by two years after enactment to accomplish this lifesaving goal. A number of suppliers and manufacturers already have unattended occupant detection technology commercially available. I'd like to now show a brief video to highlight this remarkable feature.[5]

As you can see from that demonstration, lives can be saved using technology on the market today. While automakers continue to spend billions of dollars on developing driverless cars, which is speculative technology that may save lives in the future, this detection technology is available now for approximately $20-40, according to suppliers. Moreover, that figure will drop significantly once the technology becomes standard equipment, just as it did for rearview cameras and airbags.

Additionally, such detection systems may have other useful applications. For example, this type of technology could detect whether or not occupants are properly restrained and may satisfy requirements for occupant protection. Specifically, the Moving Ahead for Progress in the 21st Century (MAP-21) Act directed the U.S. DOT to issue a rule requiring rear seat belt reminders in all new cars by October 2015.[6] This regulation, which is long overdue, could be potentially met by an occupant detection sensor. In the future, as driverless cars are deployed, this type of technology could communicate to the AV system that the car is occupied and would support determining if those occupants are restrained properly.

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[3] David Diamond, Professor in the Departments of Psychology, Molecular Pharmacology and Physiology at the University of South Florida, "A Scientific Perspective on Why Parents Forget Children in Cars," Press Event (June 7, 2017).
[4] Tori Fater and Mark Wilson, Child dies after being left in hot car, Vanderburgh sheriff says; father was USI employee, Evansville Courier & Press (Jul. 9, 2019).
[5] https://www.youtube.com/watch?v=DqPRdmqLMS0&feature=youtu.be
[6] Pub. L 112-141, Sec. 31503 (2012).

We are coming off of a major heatwave that gripped much of the U.S. for the past week, and more hot days of summer are still ahead. Unfortunately, public education alone is inadequate to overcome this innately human problem. Offering the detection technology as optional equipment at an additional cost will similarly not solve the problem because no one thinks this tragedy will happen to them. Congress must swiftly enact this legislation. Children's lives are hanging in the balance.

Pass the PARK IT (Protecting Americans from the Risks of Keyless Ignition Technology) Act (H.R. 3145) to Curb Risks Associated with Carbon Monoxide and Vehicle Rollaway

Vehicles are increasingly being equipped with keyless ignition systems, also known as push-button starts, which offer consumers the convenience of not having to use keys to start the vehicle. In fact, according to Edmunds, in 2018 keyless ignitions were standard equipment on nearly two-thirds of vehicles sold – up from just 11 percent in 2008. While these systems have increased ease of use by allowing drivers to unlock, start and turn off their cars without keys, they have also introduced new safety risks that unfortunately can be deadly.

Just this month, at least two people have died of carbon monoxide poisoning after unknowingly leaving their car running in the garage. David Clifford, a 77-year-old man from Glenmont, NY was found dead in his home on July 6th, and Connie Dotson, a 54-year-old woman who was deaf died in her home in Lexington, KY on July 9th. These two recent deaths highlight dangers of carbon monoxide, a colorless, odorless and potentially fatal gas, which is emitted by a vehicle that has been left turned on and running. The PARK IT Act (H.R. 3145) would help address this problem by requiring that a vehicle equipped with a keyless ignition and an internal combustion engine automatically shut off after a set time of idling. This important safeguard would help assure that a vehicle stops running before deadly levels of carbon monoxide are accumulated.

Keyless ignitions have also contributed to crashes involving vehicle rollaway. This problem tragically made national headlines in 2016 when Anton Yelchin, an actor known most famously for his role as Pavel Chekov in three Star Trek films, was crushed in his driveway by his Jeep Grand Cherokee as it rolled backwards, pinning him between a mailbox and security fence. As vehicles with keyless ignitions do not require a key to turn off and can be nearly silent when still on, drivers can exit the vehicle while it is still in gear. This can lead to the driver being struck by her/his own vehicle or the vehicle continuing unabated, potentially striking objects or people in its path. The legislation would require that the U.S. DOT issue a final rule to require that manufacturers install technology to prevent movement of the vehicle under specified conditions.

We applaud the leadership of Chairwoman Schakowsky, together with Representatives Darren Soto (D-FL), Seth Moulton (D-MA), Joseph Kennedy (D-MA), Ted Deutch (D-FL) and Vicente Gonzalez (D-TX), for introducing this important bill and urge Congress to enact it.

Take Action Now to Combat the Persistently High Number of Impaired Driving Crashes

On average, an alcohol-impaired driving fatality occurs every 48 minutes on America's streets. In 2017, 10,874 people were killed in crashes involving a drunk driver, accounting for nearly a third of all traffic fatalities. The National Transportation Safety Board (NTSB) has consistently listed ending impaired driving on their Most Wanted List of Transportation Safety Improvements, including the

2019-2020 list released earlier this year.[7] Moreover, when drug and alcohol use are combined, known as "polyuse", the effects of impairment for a driver can be amplified.

A number of actions exist that Congress could take to curb alcohol impaired driving. Specifically, they should direct the U.S. DOT to issue a minimum standard requiring all new vehicles to be equipped with passive sensor technology that prevents a vehicle from moving if the blood alcohol content (BAC) of the driver is above a certain level. Additionally, states should be incentivized to lower the BAC while driving limit to 0.05 percent. Moreover, 17 states still do not have a lifesaving law requiring ignition interlock devices (IIDs) for all offenders. (See Attachment C.) States that do not yet have this vital law should be required to enact it by a date certain or face a sanction.

Relatedly, Congress could take action on drug impaired driving by providing additional resources to educate and train law enforcement officers such as through the Advanced Roadside Impairment Driving Enforcement Program (ARIDE), Drug Recognition Experts (DREs) and Standard Field Sobriety Testing (SFST) training programs. Funds should also be authorized to accelerate research and development for verified roadside testing technology, improve data collection and analysis, and determine a level of impairment for marijuana use and a causal link to drug involved crashes, fatalities and injuries.

Advocates looks forward to working with the Subcommittee on ways to reduce the scourge of impairment on our roads.

Countermeasures to Prevent Distracted Driving Must be Advanced

In 2017, crashes involving a distracted driver claimed 3,166 lives. Crashes in which at least one driver was identified as being distracted impose an annual economic cost of $40 billion, based on 2010 data. Issues with underreporting crashes involving cell phones remain because of differences in police crash reporting, database limitations, and other challenges. It is clear from an increasing body of safety research, studies and data that the use of wireless electronic devices for communications (such as mobile phones and text messaging), telematics and entertainment can readily distract drivers from the driving task.

Numerous devices and applications, which pose a substantial risk for distracted driving, are being built into motor vehicles. Yet, NHTSA has merely issued non-binding guidelines which recommend, but do not require, that clearly unsafe electronic devices should not be installed in vehicles. This approach does not prohibit manufacturers from installing electronic communications devices that have highly distracting features and will not prevent manufacturers from disregarding the agency guidelines. Advocates urges Congress to direct the U.S. DOT to issue regulations strictly limiting the use of electronic communication and information features that can be operated while driving and prohibiting the use of those features that cannot be conducted safely while driving.

Additionally, improvements to the National Priority Safety Incentive Grant Program are needed to encourage states to pass strong safety laws and qualify for money to undertake efforts to combat distracted driving. Congress should pass the SAFE TO DRIVE Act (H.R. 2416), which would add

[7] NTSB, 2019-2020 Most Wanted List of Transportation Safety Improvements.

opportunities for states to improve distracted driving laws and qualify for distracted driving incentive grant awards as well as improve transparency for states in determining grant eligibility.

Legislation Should be Enacted to Make Advanced Driver Assistance Systems Standard

Every day on average, over 100 people are killed and 7,500 people are injured in motor vehicle crashes. Advanced vehicle technologies, also known as advanced driver-assistance systems (ADAS), can prevent and lessen the severity of crashes and should be required as standard equipment on all new vehicles. In fact, the NTSB has included increasing implementation of collision avoidance technologies in all of its recent Most Wanted Lists of Transportation Safety Improvements since 2016.[8]

Collision avoidance systems include automatic emergency braking (AEB), lane departure warning (LDW), blind spot detection (BSD), rear AEB and rear cross-traffic alert. The Insurance Institute for Highway Safety (IIHS) has found that:

- AEB can decrease front-to-rear crashes with injuries by 56 percent;
- LDW can reduce single-vehicle, sideswipe and head-on injury crashes by over 20 percent;
- BSD can diminish injury crashes from lane change by nearly 25 percent;
- Rear AEB can reduce backing crashes by 78 percent when combined with rearview camera and parking sensors; and,
- Rear cross-traffic alert can reduce backing crashes by 22 percent.[9]

However, these safety systems are often sold as part of an additional, expensive trim package along with other non-safety features, or included only in high end models or vehicles. Moreover, there are currently no minimum performance standards to ensure they perform as expected. Additionally, the IIHS has found that while nighttime visibility is essential for safety, few vehicles are equipped with headlights that perform well. Federal Motor Vehicle Safety Standard (FMVSS) 108 should be upgraded to improve headlight performance.

We urge Congress to require that advanced technologies that have proven to be effective at preventing and mitigating crashes be standard equipment with minimum performance standards. In a similar vein, Congress should enact the Safe Roads Act of 2019 (H.R. 3773) which directs the U.S. DOT to issue a final rule for AEB to be installed in all new trucks. On the path to AVs, requiring minimum performance standards for these foundational technologies will ensure the safety of motorists in vehicles and all roads users sharing the driving environment with them, while also building consumer confidence in the capabilities of these technologies.

Commonsense Regulation of Experimental Driverless Car Technology is Essential

Autonomous vehicles (AVs), also known as driverless cars, are being developed and tested on public roads without sufficient safeguards to protect both those within the AVs and everyone sharing the roadways with them without express consent. Numerous public opinion polls show a high skepticism and fear about the technology, and for good reason. (See Attachment D.) At

[8] NTSB Most Wanted List Archives, https://ntsb.gov/safety/mwl/Pages/mwl_archive.aspx

[9] IIHS, Real world benefits of crash avoidance technologies, available at: https://www.iihs.org/media/259e5bbd-f859-42a7-bd54-3888f7a2d3ef/e9boUQ/Topics/ADVANCED%20DRIVER%20ASSISTANCE/IIHS-real-world-CA-benefits.pdf

least six crashes resulting in four fatalities have occurred in the U.S. involving cars equipped with autonomous technology that are being investigated by the NTSB.

While AVs have tremendous promise to meaningfully reduce traffic crashes, fatalities and injuries once they are proven to be safe, they must be subject to minimum performance standards set by the U.S. DOT. These standards should include, but not be limited to, cybersecurity, vehicle electronics, driver engagement for AVs that require a human driver to take over at any point, and a "vision test" for driverless cars to ensure they can properly detect and respond to their surroundings. Relatedly, Advocates is opposed to further expanding exemptions from existing regulations beyond the reasonable cap of 2,500 vehicles currently in place for most automakers. Section 24404 of the Fixing America's Surface Transportation (FAST) Act allows unlimited testing of vehicles that do not have to comply with the FMVSS.[10] Under this expansion, manufacturers have broad ability to test AVs. Minimum performance requirements and protections will be especially critical as autonomous systems are deployed in commercial motor vehicles. Furthermore, although AVs may increase access to mobility in the future, the varying needs of diverse disability communities, such as wheelchair users, must be addressed and safety must be ensured.

Along with sensible regulations for AVs, consumers and regulators must be given essential information, data and documentation about AVs, and not just descriptions which potentially could be accomplished with a glossy marketing brochure. Consumers must be made aware of the limitations and capabilities of the technology in the owner's manual and at the point of sale, as well as via a public website searchable by the vehicle identification number (VIN) that includes, at a minimum, vehicle information such as any exemptions from federal safety standards and the AV's operational design domain (ODD).

The recent crashes involving the Boeing 737 MAX airplane tragically highlight the catastrophic results that can occur when automated technology potentially malfunctions and is not subject to thorough oversight. Reports have indicated that many aspects of the plane's certification were delegated to Boeing. In addition, safety systems that could have assisted the pilots were not required as standard equipment but were offered as an option at an additional cost. Lastly, both planes were being operated by experienced pilots who had extensive training. In sharp contrast, there are no federal training requirements for individuals testing or operating automated vehicle technology or for the consumers who purchase these vehicles and are using them on public roads.

Congress should direct U.S. DOT to put these and other vital safeguards in place prior to the wide-scale deployment of unproven driverless cars onto public roads. (See Attachment E).

Crash Data Must be Collected and Available

At a minimum, data reflecting the performance of a vehicle including how the safety systems perform in a crash should be collected, recorded, accessible, and shared with appropriate federal agencies and researchers so that safety-critical problems can be identified. Currently, vehicles are not required to be equipped with an event data recorder (EDR). While there is a requirement for what data voluntarily-installed EDRs must capture, this information is insufficient to properly ascertain facts about crashes, especially as vehicles become more highly automated. EDRs must

[10] Pub. L. No. 114-94 (2015).

be mandated for all vehicles and required to collect sufficient, standardized information to aid investigators and regulators in assessing performance, including for AVs.

Connected Vehicle Technology with Potential to Offer Added Safety Benefits Should be Deployed

Connected vehicle technologies allow a vehicle to send and receive communications with other vehicles (vehicle-to-vehicle (V2V)) and the infrastructure (vehicle-to-infrastructure (V2I)). These messages can relay information ranging from the relative location and direction of motion of other vehicles to warning messages that traffic lights are about to change or weather conditions are soon to be encountered. These systems will likely help fill in gaps in the performance of AVs. In 2017, NHTSA issued a Notice of Proposed Rulemaking to require V2V technology.[11] However, despite the identified safety benefits of V2V technology, this rule is languishing at the U.S. DOT. Congress should direct U.S. DOT to complete this rulemaking by a date certain.

The Upward Trend of Fatalities among Vulnerable Road Users Must be Reversed

Deaths and injuries of pedestrians and bicyclists are unacceptably high. Recently released estimates for 2018 show that despite a slight decrease in overall crash deaths, fatalities of pedestrians increased by four percent and pedalcyclist fatalities increased a staggering 10 percent. These upticks follow fatalities of pedestrians and bicyclists hitting their highest levels in approximately 30 years in 2016.

Collisions involving vulnerable road users do not have to be a death sentence. Vehicles can be designed, specifically in the front end, to reduce the severity of impacts with pedestrians and/or bicyclists. Collision avoidance systems for pedestrians, like advanced AEB, also have promise to further reduce deaths and injuries. Advocates continues to monitor research on the effectiveness of these systems and will support data-driven solutions to crashes involving vulnerable road users.

Moreover, the New Car Assessment Program (NCAP) must be updated to include pedestrian crashworthiness and pedestrian crash avoidance, among other improvements. The United States was the leader in developing NCAP 40 years ago when Advocates' Board Member Joan Claybrook was at the helm of NHTSA, yet has fallen woefully behind our international counterparts in robust and comprehensive ratings of vehicle safety. Additionally, upgrades to infrastructure such as protected intersections, dedicated paths, use of automated enforcement systems to curb speed and red light running, leading intervals for signaling, and other improvements could also offer pedestrians and bicyclists better protection to reduce the occurrence and severity of crashes.

In September 2018, the NTSB issued a Special Investigation Report on Pedestrian Safety, which reinforced the need to implement a number of these safety improvements. We urge Congress to direct NHTSA to issue a standard for improved vehicle designs to reduce the severity of impacts with vulnerable road users and update NCAP to include pedestrian crashworthiness and pedestrian crash avoidance, among other essential improvements.

[11] 82 F.R. 3854 (Jan. 12, 2017).

Safety Improvements are Needed to Address the Aging Population

In 2017, over 6,500 people age 65 and older were killed in traffic crashes – representing 18 percent of all traffic fatalities. Advocates has developed federal legislative proposals addressing both human factors and vehicle design issues to improve the safety of older adults. These recommendations include development of a crash test dummy representative of older occupants, revising NCAP to include a "Silver Car Rating", and modifying the injury criteria used in crash tests to address the specific injury patterns suffered by older occupants. We encourage the Subcommittee to examine issues particular to older Americans and advance these measures.

NHTSA Must be Sufficiently Funded and Given Additional Authorities

Ensuring NHTSA has adequate resources, funds and staff is a crucial priority for the agency to successfully carry out its mission "to save lives, prevent injuries, and reduce economic costs due to road traffic crashes, through education, research, safety standards, and enforcement." However, the agency is chronically underfunded. Currently, 95 percent of transportation-related fatalities and 99 percent of transportation injuries, involve motor vehicles. Yet, NHTSA receives only one percent of the overall DOT budget.

In recent years, millions of motor vehicles have been recalled for serious and fatal safety defects including faulty General Motors (GM) ignition switches and exploding Takata airbags. Nonetheless, used cars can still be sold and leased with open recalls – a significant loophole that should be closed. Additionally, NHTSA should be given the ability to take immediate action, known as imminent hazard authority, when the agency determines that a defect substantially increases the likelihood of serious injury or death if not remedied promptly. Further, NHTSA should be given the authority to pursue criminal penalties in appropriate cases in which corporate officers who acquire actual knowledge of a product danger that could lead to serious injury or death and knowingly and willfully fail to inform NHTSA and warn the public. Considering the unacceptably high number of fatalities and injuries on our Nation's roads, the prevalence of recalls, and the new responsibilities incumbent upon the U.S. DOT as AVs are developed and deployed, NHTSA must have additional resources and authorities to effectively oversee vehicle safety.

Conclusion

Advocates commends the Subcommittee for holding this vital hearing on "Legislation to Make Cars in America Safer." With crashes, deaths, injuries and costs needlessly high, the recommendations outlined above should be implemented with urgency. While fully driverless cars may have a future potential to reduce the carnage on our roads, commonsense, lifesaving solutions can and must be implemented now. Advocates looks forward to continuing to work with the Subcommittee to make our Nation's roads safer for all.

[Additional material submitted by Ms. Chase has been retained in committee files and also is available as part of her prepared statement at http://docs.house.gov/meetings/IF/IF17/20190724/109842/HHRG-116-IF17-Wstate-ChaseC-20190724.pdf.]

Ms. SCHAKOWSKY. I thank the excellent testimony of all our witnesses. So we have concluded the opening statements, and now we will move to Member questions. Each Member will have 5 minutes to ask questions of our witnesses, and I will start by recognizing myself.

So one death may be an anomaly, but over three dozen documented deaths prove that keyless ignition systems can be deadly and dangerous, and without appropriate safeguards in place anyone with a keyless ignition vehicle could be in danger. So, Ms. Livingston, you yourself have accidentally left your keyless ignition vehicle running—I have done it as well—for 9 hours while you were at work. Is that right?

So what I wanted to ask you, though, is if you could explain how easy it is for a distracted driver to inadvertently leave keys in the ignition and the car running.

Ms. LIVINGSTON. Yes, so in my case I have had it happen three times. And I dropped my car off at Wonderland T Station to go into Boston and parked my car at Lucky's, an outdoor garage, but my radio continued running. I listen to Bloomberg on the way to work, and the radio was going. I grabbed my bag. I stepped out. There is quite a bit of traffic, by the way, as well, so you can't hear the engine.

I locked the car, and there is absolutely no indication, went into work, and when I came back to the car I got in and I looked at the dashboard and I thought, wait a minute. I think my car is running. And I just felt really lucky I didn't run out of gas. And I have heard so many stories now since this happened to my parents of other people who came and their car had run out of gas.

One time I did the old valet trick where I valeted the car at the United Way Women's Breakfast in Boston, and they took the car. I had the key fob in my purse. Went to the breakfast and I came out to the valet and waited and waited, and all these people were leaving. I was like, I have another meeting, where is my car? And they said, "Oh, you never gave us the key fob." So again, this has happened.

And I had a friend who they rented a car, and he drove the car up and his son took the rental car from here, from D.C., up to New York, and his son got to New York and realized his dad still had the key in his pocket. So these are things that happen that are inconvenient and annoying, but usually not fatal. And I would suggest this happens a lot.

Now, when there are two-thirds of new vehicles all have this keyless technology, we really do need better systems, and GM and Ford have embraced it.

Ms. SCHAKOWSKY. Thirty-six deaths that we have documented. There may be more that we don't know about.

Ms. LIVINGSTON. There are many more, I am sure.

Ms. SCHAKOWSKY. Exactly. Mistakes obviously should not cost lives. Ms. Livingston, should technologies that automatically shut off a keyless ignition vehicle if the engine has idled for a dangerous period of time be required in all cars, and do you support the PARK IT Act?

Ms. LIVINGSTON. Yes, I support the act. And I have noted that if the car had run just 30 minutes and turned off, my parents

would still be alive. I rented a GM down in Sarasota when I was cleaning out the condo, which is not an easy job to do, and it was so hot. It was 103 degrees, so I understand people saying, "Oh, I want to leave the a/c on."

I had to grab papers to go to the lawyer, and I walked out of the car and the horn honked. I mean that was a really great reminder that I had the key. I intentionally was just running into the condo and back. I think these things are so easy to install, I can't get my head around why the other car manufacturers have just ignored it.

Ms. SCHAKOWSKY. Thank you.

So I want to switch to a different topic right now. Twenty-one children have tragically died this year—this is a record—inside a hot car. A majority of these tragic deaths are accidents, distracted parents merely going about their busy lives accidentally leaving their children inside a rapidly warming car.

So, Ms. Chase, the technologies exist today that can detect the presence of a child left in a car. We saw your video. Why is it important, so important, to adopt technologies that can detect—I am talking about detection systems now—the presence of a child, and why this is an element that is essential?

Ms. CHASE. Thank you for the question. It is so important that there is a detection system. First of all, no parent or caregiver thinks that this will happen to them. Nobody wakes up in the morning and thinks they are either going to leave their child unintentionally or that a child will climb into a car, but it is happening.

And we have the technological solutions, especially as you mentioned, Madam Chairwoman, the detection system, because that can say there is somebody in this car, or a pet, and action needs to be taken. If there is just an alarm, that can be accomplished with different technologies such as door sequencing and it won't detect all of the children that are dying now. So we want the effective solution to take place and Hot Cars will do that.

Ms. SCHAKOWSKY. Thank you. Time flies, I yield back, and now recognize the ranking member of the subcommittee, Mrs. Rodgers.

Mrs. RODGERS. Thank you, Madam Chair.

Dr. Nordstrom, why is it important for NHTSA to study drug-impaired driving, including the opioid impairment? Are there holes in the data we have today that we could learn more about with a targeted study?

Dr. NORDSTROM. Indeed. Thank you for the question. First, there are holes in the data, I think, because that really speaks to one of the fundamental challenges that we have. When we think about the Fatality Analysis Reporting System, which looks at drugs that might be present in somebody after a fatal car crash, what we see is that the way that is it implemented is very different from State to State.

And it is used in 2 percent of cases in some States, up to 96 percent in other States, so there is not any uniformity to it. And then, furthermore, when the drugs are actually looked for, different cutoffs are used as well, and so we get uneven reporting and so we are kind of constantly comparing apples to oranges. It makes it really hard to know the actual full extent of the problem.

The reason why it is very important is because there are large educational holes that probably need to be filled. We know that,

when it comes to people's beliefs about using different medications or different recreational drugs, there is not any really clear sense from the population, the using community, about what is safe and what isn't safe. And so we have to understand the scope of the problem, so then we can actually target finding out what kinds of countermeasures we need to do and then measure them to see if they are working so we know how to allocate those resources in the future.

Mrs. RODGERS. Good. What do you think is the most important aspect to be studying as far as the drug-related impaired driving?

Dr. NORDSTROM. So I think that there are a number of things that are really important, and I think that a big one is looking at the prevalence of things. And so, looking at doing things like oral fluid analysis where—and expanding opportunities to do that like is being done in Michigan, I think, would be very, very important so that we can understand what is happening on the roads.

And then that also leads to, I think, the next thing that is really important, which is a very, very good assessment and screening for everybody who is found to be driving while impaired, so that we can understand what their treatment needs are and what their supervision needs are, so that we can individualize plans so that we know that we are targeting the underlying causes of very lethal criminal behavior.

Mrs. RODGERS. Great, I appreciate that. Would you share with the committee what polydrug use is and what risk it poses to the public? Is this an issue that NHTSA should focus on during the study in our bill, and if so, how would improving data on this issue help State and Federal officials?

Dr. NORDSTROM. Thank you, yes. So polydrug use is just the use of more than one psychoactive substance at the same time. So that could be alcohol and marijuana, which seems to be the most common combination that is being detected in the FARS data. But it could also be, you know, cocaine or methamphetamine and alcohol or it could be opioids and marijuana. It could be lots of different things.

And the reason why that is very important is, again, those substances are going to interact in the brain and create kind of unpredictable at this point effects on driving. We know that sometimes it is a one plus one equals two, and so people have—smoke a little bit and do some opioids, and sometimes it is actually multiplicative, and so you will get a 1 plus 1 equals like a 3 kind of effect out of it.

And so this is the sort of things that we need to understand better in terms of how these drugs affect people, and then we also have to be able to communicate that to the public so that they know what is safe.

Mrs. RODGERS. One last question. Based on your experience with impaired driving, do you believe it is important to treat drug-impaired driving as seriously as driving under the influence of alcohol?

Dr. NORDSTROM. Well, I certainly think it is every bit as lethal. Now, we know that drunk driving is still far more prevalent a behavior, but as people's drug use patterns change over time, we are

going to see those changes in our statistics as well. And it is every bit as lethal, so it deserves as much attention.

Mrs. RODGERS. OK, thank you very much. I yield back.

Ms. SCHAKOWSKY. Thank you. I do want to acknowledge in the audience today we have Helen Witty, who is the head of MADD, Mothers Against Drunk Driving, who for decades has been helping to make our roads safer.

And now I recognize Chairman Pallone for 5 minutes of questioning.

Mr. PALLONE. Thank you, Madam Chair.

Consumers have an expectation that safety is ingrained in every component of their car, even features like keyless ignition systems. But I wanted to start out by asking Ms. Livingston, were you or your parents aware of the potential dangers posed by keyless ignition vehicles, and even if your parents were notified of the potential dangers, do you believe that that awareness alone would have saved their lives, if I can ask?

Ms. LIVINGSTON. No. They were not aware, as far as I know, nor was I. And in fact, Sherry purchased this particular car based on its safety features. So the keyless ignition has been marketed and sold as a convenience without any real notification of the potential dangers. I think education does help, but as Ms. Chase suggested, humans make mistakes, and I still think with a very inexpensive technology we really could protect people and save lives.

Mr. PALLONE. Well, thank you. I am not even sure I understand how it is a convenience, but whatever, thank you.

Ms. LIVINGSTON. Me neither. It wasn't that hard to turn a key.

Mr. PALLONE. I know.

Ms. LIVINGSTON. Do you agree? OK.

Mr. PALLONE. I agree. Ford and General Motors have installed technologies automatically shutting off the engine of a keyless ignition vehicle if it has idled for an unsafe period of time, and Toyota has pledged to do the same with its 2020-year model vehicles.

So I wanted to ask Ms. Chase, with industry beginning to adopt some of these safety features, why do you think it is still important to have a robust Federal standard on the books? We always ask the question, Do we need to do this?

Ms. CHASE. We need to do this. And we need to do it because these are voluntary measures, and there is no requirement without a Federal mandate that this technology that has been proven to save lives be in all cars. It is also not happening quickly enough. With every passing day we are endangering people throughout this country unnecessarily, when there is proven technology that can be saving lives.

Mr. PALLONE. Thank you. And vehicle roll-aways are another hidden danger tied to keyless ignition systems. With a traditional ignition system, a driver is unable to physically remove the key from the ignition until the vehicle is in park. But with keyless ignition systems, drivers are reporting that they can shut off and leave the vehicle with the car still in gear.

So let me again, Ms. Chase, what safeguards can be deployed to prevent these sorts of issues with that?

Ms. CHASE. And I am sorry, Mr. Chairman. Are you talking about the roll-away issue?

Mr. PALLONE. Yes, the roll-away.

Ms. CHASE. So the PARK IT Act would solve this problem. There are five conditions that if a car isn't in park, if the door is open, if the driver is out, then the car will be stopped. And this is essential legislation that should be passed expeditiously, and that is a really hard thing to say.

But we really thank you for your leadership. And when we know that people are dying when there is a solution at hand, it is all the more tragic, so let's get this technology into cars. We urge Congress to take immediate action on the PARK IT Act as well as the Hot Cars Act to stop these preventable fatalities.

Mr. PALLONE. Again, thank you, because I think we really should spare no expense to protect our Nation's kids.

Ms. Chase, again, how expensive is the technology used to detect the presence of a child in a vehicle and alert the driver or parent?

Ms. CHASE. I have spoken with a few of the suppliers, and I have heard that it can range from 20 to 40 dollars. But the key of that is, once they are required as standard equipment, we all know that the price significantly goes down. So that is why this legislation is so essential, to get it as standard equipment into all cars.

Mr. PALLONE. Now, we know that during our May hearing, Mr. Harrison shared the heartbreaking story of the death of his son, Chase, who tragically died after being accidentally left in a hot car. So let me go back to Ms. Chase. Do you believe that Mr. Harrison or any of the hundreds of other parents who have lost a child to vehicular heatstroke would have been willing to pay for these technologies?

Ms. CHASE. Absolutely. Miles's story is heart wrenching. We worked very closely with him and KidsandCars.org and all of the incredibly brave families that come up to Congress, who have been coming for years, and talk about the worst thing that has ever happened to them and their families over and over again. It is time for this technology to be put in all cars now.

Mr. PALLONE. Just let me ask one more question. Do you believe that child detection technologies are sophisticated enough to accurately and reliably detect the presence of a child in the vehicle?

Ms. CHASE. I do believe that. And in fact, we are working on holding another demonstration so that all Members of Congress and members of the public can come see how this technology works. We had one a couple months ago, and we are going to keep showing this technology, which gets better and better over time. But we believe that it is there now. And we also know that the rulemaking process takes some time, so what—that period of time, technology will continue to evolve. When we are talking in the same breath about driverless cars, certainly we can get a detection system into cars.

Mr. PALLONE. Thank you. Thank you, Madam Chair.

Ms. SCHAKOWSKY. I now recognize Mr. Latta for 5 minutes for his questions.

Mr. LATTA. Well, thank you, Madam Chair. And thank you very much for our witnesses for being with us in today's hearing.

Dr. Nordstrom, in your testimony you spoke about the need to implement a comprehensive approach that includes innovative solutions to eliminate impaired driving. Two of the bills that we are

discussing today aim to improve motor vehicle safety and prevent impaired driving. In addition to these proposals, I believe we should also be examining and encouraging the deployment of self-driving technologies, which have the potential to save tens of thousands of lives that are lost every year to impaired driving. Over 10,000 people lost their lives in 2017 in alcohol-impaired driving crashes.

We have also seen a significant increase in the number of American drivers killed in vehicle crashes in which drugs were detected. According to the Governors Highway Safety Association, in 2016 the number of drivers who were fatally injured in accidents with drugs in their systems surpassed the number of those with alcohol in their system for the first time ever.

Ninety-four percent of the accidents are attributed to human error, including through impaired driving. These statistics are staggering and show that we must work together to prevent more tragedies. And that is why last Congress I introduced the SELF DRIVE Act, which would have clarified the Federal and State rules in regulating the self-driving vehicles, ensured consumer safety, reduced traffic-related fatalities and injuries, and improved mobility for individuals with disabilities.

This legislation also included legislation from a previous version of our chair, Chair Schakowsky's, legislation to prevent the tragedies we heard about today when a child is left in a hot car. The SELF DRIVE Act passed unanimously out of this committee and on the floor, and I hope that we and our Democrat colleagues will continue to work with me to make this a priority again.

Self-driving cars are our future, and without congressional action the U.S. will be at a competitive disadvantage and Americans will lose out in its lifesaving benefits. We have this opportunity to work towards ending senseless deaths on our roads by making investments in our vehicle technology.

So, Dr. Nordstrom, have you considered the self-driving vehicles as a component of the comprehensive approach to addressing impaired driving?

Dr. NORDSTROM. So thank you for the question. I think you are absolutely right. I think that there is a lot that will be gained when we get there, and I think that it is, you know, that could be a massive boon for saving thousands of lives on American roadways. The challenge is, it is going to take a while to get there.

And so, in the meantime, you know, I am very heartened to see the time and attention this committee is putting into all of the incremental steps between now and when we finally get to where you are describing so that we can save as many lives as possible in the interim.

Mr. LATTA. OK, so I just want to make sure. So in your studies right now you haven't been taking in the thought of driverless technologies, or you have been considering it as you are doing the research?

Dr. NORDSTROM. Well, I think that, you know, we see that as something that is pretty far in the future for us, and especially when you think about the way that the fleet is going to turn over for the—that when we think about this and how we are going to sort of allocate our efforts, we are concerned about the nearer term.

So, even though I completely agree with you that that is ultimately something that I think is going to be perhaps even sort of solving the problem definitely, until we get there, we have to be doing these other things.

Mr. LATTA. OK. If I could just follow up with another question. You focused on increasing dangers of drivers being impaired by opioids across the country, and especially in my home State of Ohio the opioid and drug addiction crisis has devastated our communities. And you pointed out that the Government, especially the FDA, can do more to increase awareness of the safety risks of driving while impaired by opioids.

What are some of the ways that the FDA can do this, and how can the Federal Government, in general, help to improve the understanding of opioid-impaired driving?

Dr. NORDSTROM. So it is a great question, and I think that ultimately one of the things that we really need to do is have much better efforts at educating physicians on how to talk to patients about risk when they are prescribing and also to talk with pharmacists about how to talk about risks when they are dispensing to people.

I can tell you from having been in clinical practice for years, the number of patients who would express surprise when I would tell them, "Do not drive after you start taking this medication until you know exactly how it affects you, and it is going to take several days for you to know that." They would say, "Well, nobody has ever told me that before."

And it is the kind of thing that we really need to be pushing so that people understand what these risks are, because I think that there is a lot of this that people just kind of assume that, if their doctor or pharmacist isn't saying something or if they are just putting a little sticker on the bottle, it must not be that serious, and it really is. So I think we need to be doing more in terms of educating.

Mr. LATTA. Well, thank you very much.

Madam Chair, my time has expired, and I yield back.

Ms. SCHAKOWSKY. The gentleman yields back. I now recognize Congresswoman Dingell for 5 minutes for questions.

Mrs. DINGELL. Thank you, Madam Chair.

As I mentioned, this week I will be introducing a bill that calls for commercializing and standardizing a passive alcohol detection system. This technology needs to be the standard in all new vehicles, and it will save 7,000 to 10,000 lives every year. It also calls for a significant field test and a reasonable rulemaking process leading towards making driver-impaired technology a Federal standard. I hope my colleagues can join me in supporting this measure, and I ask the chairwoman if she would consider another hearing in September when the legislation is introduced.

Ms. SCHAKOWSKY. Yes.

Mrs. DINGELL. Thank you, Madam Chair.

I am a car girl, everybody knows that. And I believe the U.S. auto industry is home to some of the best and the brightest engineers in the world. They have solved complex problems, and they are working on new and amazing safety features all the time, and

we all agree that we need to see some of them put on the vehicles themselves.

You know, Frank asked, Do we need regulation. Well, unfortunately, sometimes we do, and here is an example of when we do. It is just when it comes to advancing technology in vehicles that will prevent those who drink and drive, like the driver alcohol detection system for safety, we have got to get it done faster, because if the technology was in use today, the Abbas Stop Drunk Driving Act and legislation wouldn't be necessary.

So I want to first ask a couple of questions on DADSS, because we have been hearing about this program for so long, before I ever got to Congress, to tell you the truth. And while we know there is room for improvement, we really need to get this technology tested at scale in front of consumers so we can start saving lives.

Dr. Nordstrom, these questions are for you. Do you have an estimate on how many vehicles the DADSS program currently is being tested on?

Dr. NORDSTROM. I don't know right off the top of my head.

Mrs. DINGELL. Can you get that for the record, please?

Dr. NORDSTROM. Yes.

Mrs. DINGELL. And in your opinion, what is needed to finally—it is not a lot though, is it?

Dr. NORDSTROM. No, ma'am.

Mrs. DINGELL. It is like a minimal. But could you, just so that—I know what it is, but can you give other people a sense about of how many vehicles it is really being tested on?

Dr. NORDSTROM. I think it is just a handful, ma'am.

Mrs. DINGELL. Right, thank you. And in your opinion, what is needed to finally move this technology from the lab and that limited field testing to something that can be placed in vehicles and fleet-tested on a larger scale?

Dr. NORDSTROM. Well, from my understanding, it is additional money in order to get the technology to finish the development of it and to start putting it into vehicles.

Mrs. DINGELL. It is only money?

Dr. NORDSTROM. Well, money and time.

Mrs. DINGELL. Do you think this technology—I shouldn't say only money. Money does matter. Do you think this technology would be ready for a fleet test of 1,500 cars by 2020?

Dr. NORDSTROM. Yes, I am being told by the end of 2020 we could expect that.

Mrs. DINGELL. OK. I want to change my focus and ask a few questions about mandatory first-offender interlocks. In States that have mandatory first-offender interlock laws, have you seen a reduced number of alcohol-related fatalities?

Dr. NORDSTROM. Yes, ma'am.

Mrs. DINGELL. Do you have a sense for the cause of the resistance from States that haven't implemented that mandatory first-offender law?

Dr. NORDSTROM. So, from my conversations with people, you know, the things that we kind of hear about are that there are very frequently difficulties, especially in States that are fairly rural, that getting people to places where they can get those interlocks

installed is difficult. And then the other thing that we frequently hear is difficulty getting them put in for indigent people.

Mrs. DINGELL. OK. And one last one, Dr. Nordstrom. If a police officer is out on patrol and sees someone swerving all over the road, they hopefully will pull that person over, because from the outside the car impaired driving tends to look the same. It could be a sleepy driver. They could be drunk, high—I share my colleagues' concerns about marijuana—texting distract, or any combination of these.

Do you think that law enforcement is generally in need of more resources for enforcement of impaired driving?

Dr. NORDSTROM. Yes, ma'am. I definitely do.

Mrs. DINGELL. Thank you.

Madam Chair, thanks for holding this hearing again, and I hope we are going to stay very focused on this issue, and I yield back.

Ms. SCHAKOWSKY. The gentlelady yields back, and Mr. Guthrie, I think, is next. Am I right? Yes.

Mr. Guthrie, you are recognized for 5 minutes.

Mr. GUTHRIE. Thank you, Madam Chair. I appreciate the opportunity, and thanks for having this hearing.

Thanks for being here and sharing your story, and thanks for being here and sharing your expertise and your advocacy. One of my big concerns—and I am really glad we are pursuing the technology that affected your family, Ms. Livingston, but also one of the concerns that I have had is impaired driving, particularly as some States are making the decision to allow people to use marijuana. And I think that encourages young people to say it is OK, you know, I mean that for some reason it is, and that is just my belief.

And so, the question I hear from law enforcement people, just the difference is that, when you see impaired driving, the difference is you can do a blood test, a sobriety test with alcohol that you really can't do with marijuana. And so, as more people are doing it, because it is being—the word not encouraged, but saying it is OK, by the State saying it is OK to do, then more people are doing it.

So, Dr. Nordstrom, just the differences between drunk driving and—or just impaired driving, one by alcohol and one by, I will just say marijuana, I know there are other people and have other—and how—I know there is a study underway from NHTSA to try to differentiate and how you can test for that in the field test. Could you explain what is going on and how we could explore further?

Dr. NORDSTROM. So the challenge with alcohol versus cannabis, you know, it is that alcohol is very, very well studied at this point. It follows a pretty clear dose/response curve that, when people drink a certain amount of standard drinks, their blood level will rise a predictable amount.

Alcohol metabolism follows something called zero order kinetics, which means that a very predictable amount is removed over time, and it is just a much more sort of knowable field. When it comes to cannabis and THC, which is the psychoactive component in cannabis, that dose/response curve is much trickier to estimate.

That the thing that is also difficult is the amount of THC in any given product varies wildly. The root of administration changes, whereas all alcohol is basically swallowed. Sometimes people are smoking, sometimes people are swallowing and, you know, orally

ingesting cannabis products, so it is very, very hard to know when the levels are going to rise, and then the metabolism is different.

The other thing that is different is in alcohol we know that a certain blood level corresponds to a certain level of impairment. We don't have that same clear predictability when it comes to blood levels——

Mr. GUTHRIE. Because you still have THC in your system but not be impaired, right, because it lingers in your system longer?

Dr. NORDSTROM. So, well, THC itself will—it is always going to be intoxicating, that is psychoactive and one of the first metabolites. So one of the first breakdown steps in THC is still active, eventually you get to an inactive form and that inactive form stays around much longer than the active forms do.

Mr. GUTHRIE. So you know when the active and inactive, and active is what is intoxicating.

Dr. NORDSTROM. So that is what is important.

Mr. GUTHRIE. It is impairment——

Dr. NORDSTROM. For our purposes that is what is important to measure for impairment.

Mr. GUTHRIE. What is the field test, field sobriety, because if a police officer suspects alcohol or smells it or whatever, they can do a field test to see if they are impaired, then they go to the more—tests, if you are going to do something in court, I am sure you have to go further than that.

Does the field tests—can you tell an impaired driver with cannabis as you can with——

Dr. NORDSTROM. Well, to Congresswoman Dingell's point, when somebody is weaving around the road, that is the first indication. When they pull them over and they are acting impaired but they don't smell alcohol, they do a portable breath test and it is negative, then this is where it gets tricky. If they are not a specifically trained drug recognition expert, they might not know necessarily what to look for.

Mr. GUTHRIE. So the walking heel-to-toe, touching your nose, with your eyes, because that kind of stuff wouldn't be the same effect as alcohol?

Dr. NORDSTROM. They could do those field sobriety tests and say, "Yes, this person is impaired" but not be able to detect alcohol. So they will say, "Well, something is up," and that is where the oral fluid testing can be very useful. For somebody who hasn't gone through all the rigorous training to become a drug recognition expert, they could at least test oral fluid and then say, "OK, this person does have THC or its active metabolite present in their system," and then you can start building probable cause for building a more kind of comprehensive that the person is driving under the influence of cannabis.

Mr. GUTHRIE. And I am sure that is inconsistent across police jurisdictions about how that is applied or not applied?

Dr. NORDSTROM. Yes, sir. Yes. There is not a standard approach. It is not—that oral fluid testing has not really been built into standard operating procedure anywhere in the United States, as far as I know.

Mr. GUTHRIE. Because there is no jurisdiction that does it now?

Dr. NORDSTROM. Not as part of SOP, sir.

Mr. GUTHRIE. OK.

Dr. NORDSTROM. But it has been done in, I believe, Canada and Australia. There is precedent.

Mr. GUTHRIE. OK, so there are some places that we could study to see how it works and how it moves forward.

Dr. NORDSTROM. Yes, sir.

Mr. GUTHRIE. Well, thanks for that. And I know it is very concerning, and thanks for all of you for being here today. I appreciate it very much, and I yield back.

Dr. NORDSTROM. Thank you, sir.

Ms. SCHAKOWSKY. The gentleman yields back, and now I recognize Mr. Soto for 5 minutes.

Mr. SOTO. Thank you, Madam Chairwoman.

You know, as technology increases in vehicles, we in Congress have to keep up with those changes. And, while it is so exciting to have vehicles that are keyless and others that turn off and on for energy efficiency and others that will be plugged in, this committee's work is going to have to continue to make sure that we are doing the things we do to keep people safe.

And we hear every week different issues that we have to work on, and I am really proud to be part of a lot of these bills to help increase vehicle safety, particularly joining our chairwoman, Seth Moulton, and Congressman Kennedy, as well as Congressman Moulton and dealing with issues in the PARK IT Act of the risks of keyless ignition technology.

I wanted to first start by asking Ms. Livingston, How important is this bill to protect our seniors, to protect our children, and other vulnerable populations?

Ms. LIVINGSTON. Thank you for the question. I think it is essential. I can't believe keyless ignition has been around for over 10 years and we don't have a regulation. The auto industry sometimes represents, "Oh, we will do it on our own voluntarily," has not happened. We need the legislation as soon as possible.

Two more people have died since my parents died in May, and it is not just elders. There was a young 20-year-old woman who died and, sadly, her fiancee survived. Sometimes it is worse to survive carbon monoxide. But we definitely need a law. NHTSA is looking for leadership from Congress on this.

Mr. SOTO. Do you think most consumers are aware right now of the dangers of a car remaining on in a keyless ignition scenario?

Ms. LIVINGSTON. I don't think so. I don't think my parents knew. I know I wasn't really aware of it other than the fact that I had left my car a few times when it was still running, and I couldn't hear it. And I think this—so a little confusion on terminology, but the auto-stop to save gas, as you mentioned, a number of cars, when you get to a red light, the car engine stops, so people think that the engine is off.

I think very few people are aware, and a number of people after the story came out on my parents mentioned to me that they had never heard of it, and then more and more stories come out. We need to do something to protect consumers.

Mr. SOTO. Thank you for that. And it is part of the initial theme which is, you know, all these things are progressing, but it is the Federal Government's responsibility with these types of progress

that are in interstate commerce to make sure they are safe. People assume we are doing our jobs and today this is part of that.

Ms. Chase, how important is the Hot Car technology, and a similar question: Are people aware that this threat is out there, in your opinion?

Ms. CHASE. The Hot Car technology is essential because, with every passing day and it is hot outside, and by the way this still happens when it is not so hot out. It can happen when it is 60 degrees outside. Children are at risk, and we have a proven solution that there is a detection system and alarm system. There is no reason why this shouldn't be in all cars today.

Mr. SOTO. And do you think people are aware of this risk, particularly if it is 60 degrees out, who would really think that that could be a risk?

Ms. CHASE. You know, I think there is some awareness but not enough. And nobody wakes up and thinks, oh, I might leave my child in the car today. And this happens especially when there is a change in routine where Mom is usually the one who drops off the child at daycare, but Mom is out of town on a business trip, so Dad is doing it today. And say Dad is driving to work—we all kind of go on auto pilot in a sense, and you start thinking about something at work or you get a call which you shouldn't answer, but people do, and then you get distracted and you forget there is a sleeping baby, rear-facing.

There is no indication, really, there is no sound, there is no movement. There is technology there that can solve this problem. It is not the fault of the parents.

Mr. SOTO. Well, and I am glad you mentioned that, because that is what I would like to end on. The fact that we have this increasing technology to help with some of the new issues that other technology causes, it gives me hope that we are going to be able to resolve these issues and prevent the kind of tragedies that you all saw with your own eyes with your families. So thanks for being here today, and thanks for your courage.

Ms. SCHAKOWSKY. The gentleman yields back, and I now recognize Mr. Bucshon for 5 minutes.

Mr. BUCSHON. Thank you, Madam Chairwoman. I just had a hot car death in my district about a week and a half ago, 3 years old, was apparently asleep. So this is—it has been devastating for the family, but also for the community of Evansville, Indiana, to realize that these things do happen. And the parent was a responsible parent, it just happens. So I am glad the committee is working towards addressing that particular issue. I think it is important.

You were talking, Dr. Nordstrom, about THC and impairment. As you know, opioid abuse is out there, but also just using opioids for legitimate purposes. And you mentioned, I think, in your testimony that because of that rise that there is a huge opportunity for healthcare providers—and I was a physician before I was in Congress—healthcare practitioners to address opioid-impaired driving.

Can you further expand on the opportunities available and how education plays a role and how physicians can help?

Dr. NORDSTROM. Absolutely, and thank you for the question, sir. You know, I am sure as you remember from being in practice, very frequently you will see people whose medications get added to, they

are seeing a number of different specialists and sometimes people aren't always thinking about medication interactions, especially when it comes to sort of cumulative effects on alertness.

Mr. BUCSHON. Yes.

Dr. NORDSTROM. So I think one thing that is very important is to be making sure that we are educating physicians about not just kind of the pharmacodynamic interactions, so how the drugs relate to each other chemically, but then the pharmacokinetic actions but also the pharmacodynamic interactions which——

Mr. BUCSHON. So it could be, I mean there could be some impairment with medications that are not opioid-related, right?

Dr. NORDSTROM. Of course. Yes, sir.

Mr. BUCSHON. You could have a couple medications that cause reactions that would result in impaired driving that are not traditionally thought of as being—causing impairment?

Dr. NORDSTROM. Absolutely, sir.

Mr. BUCSHON. So that is where pharmacies come into play too, right?

Dr. NORDSTROM. And this is where, yes, that there has to be sort of levels of intervention here, where if the physician forgets or doesn't have the conversation, that the pharmacist does. Because somebody is on an antihistamine that is sedating, you know, that is going to potentially affect their ability to drive, same as a benzodiazepine, the same as an opioid.

Mr. BUCSHON. Right.

Dr. NORDSTROM. You know, and so I think that the physicians need to be thinking about this when they are doing informed consent with patients about medications. But the other part of it is that the doctors need to be thinking about when they are prescribing making sure that they are reviewing the whole of the med list and for the pharmacists to be doing the same thing as——

Mr. BUCSHON. Yes, I have seen patients on 20 medicines before.

Dr. NORDSTROM. Exactly.

Mr. BUCSHON. Honestly, it is pretty routine. And Buddy, who is a pharmacist, will tell you that is the case. So do we have—and you were talking about just THC, but do we have laboratory tests for drug, other non-THC drugs like opioids that can hold up in court as it relates to impairment?

Dr. NORDSTROM. Well, certainly we have——

Mr. BUCSHON. Unless you have a zero tolerance. I mean, if you have an opioid and the law is it is zero.

Dr. NORDSTROM. And a zero tolerance. And there are per se standards for opioids in Nevada and Ohio, I believe, and I think those are the only two——

Mr. BUCSHON. But broadly we don't.

Dr. NORDSTROM. But broadly we really don't. And part of this is that there is not that same level of knowledge about what drug level in blood corresponds to——

Mr. BUCSHON. Yes. But we do have pharmacokinetics. Probably to get FDA approval, you are going to have to show human pharmacokinetics for an opioid, right?

Dr. NORDSTROM. Sure. Absolutely, sir.

Mr. BUCSHON. So, I mean, that may not necessarily have a direct correlation, though, with an impairment to a level which would make you dangerous.

Dr. NORDSTROM. Exactly. And I think that those——

Mr. BUCSHON. So how do we get to that? That is why this money is important, right? How do we get to that?

Dr. NORDSTROM. So I think part of it is doing those—having those tests be done where they look at specifically driver impairment at different blood level——

Mr. BUCSHON. How did we do it with alcohol? Did we actually have drivers and have them—I mean initially, way back.

Dr. NORDSTROM. There are standardized lab sort of experiments where you can be in a driving lab with lane excursion and things like that.

Mr. BUCSHON. That is what I am saying. Then you have people literally drink alcohol and——

Dr. NORDSTROM. Absolutely. The same methodology——

Mr. BUCSHON [continuing]. Measure their drug and test. So we don't do—we haven't done that for opioids, really?

Dr. NORDSTROM. Well, I mean, I don't think we——

Mr. BUCSHON. Or other drugs?

Dr. NORDSTROM. Not to the same extent that we have with alcohol where the blood level would——

Mr. BUCSHON. Correlate.

Dr. NORDSTROM [continuing]. Definitively correlate and hold up in court in such a way that it would meet standards.

Mr. BUCSHON. Yes. Yes, that is one of the things. And law enforcement are in a pretty tough spot.

Dr. NORDSTROM. Absolutely.

Mr. BUCSHON. Because they—the field sobriety tests may or may not hold up. And the reason I say that, I had a case in my district, again, where a 16-year-old girl was hit as a pedestrian and killed.

Dr. NORDSTROM. Oh, my God.

Mr. BUCSHON. And the driver in the field was obviously impaired, but the laboratory tests showed no alcohol, no opioids, and was probably THC, but ultimately they are still trying to—this was a couple years ago. They are still trying to prosecute that case. But there was a blood alcohol level of zero, no opioids, no benzos, but clearly failed the field sobriety test, probably on marijuana.

Dr. NORDSTROM. Oh, my Lord.

Mr. BUCSHON. And they have not been able to adjudicate that case because there is no standard. So anyway, that does happen. I yield back.

Ms. SCHAKOWSKY. The gentleman yields back, and I recognize Mr. McNerney for 5 minutes for his questions.

Mr. MCNERNEY. Well, I thank the chair and I thank the witnesses this morning, very illuminating testimony. And I want to thank the ranking member for inviting me to colead the Impaired Driving Study Act. I have thought a lot about this issue, actually.

And I am going to sort of follow up on Mr. Bucshon. Mr. Nordstrom, can you envision a field impairment test that tests manual dexterity that can hold up in court?

Dr. NORDSTROM. Yes, sir. I mean, I think that with the standard field sobriety test we can get to a point where the officer, especially

if it is a drug recognition officer, can really correlate then what they are seeing in terms of a performance decrement to a specific drug or a class of drugs. So I think we could get there.

Mr. MCNERNEY. And it would hold up in court?

Dr. NORDSTROM. Ideally, sir, yes.

Mr. MCNERNEY. OK, thank you. How would NHTSA conducting such a study as proposed in our legislation help us to reduce the number of casualties resulting from alcohol-impaired and other impaired driving?

Dr. NORDSTROM. Well, I think, sir, that if we have the opportunity to get people on their first offense and we can really identify what is going on, what they have been using, and then come up with specific targeted plans for how to intervene to address the underlying causes of the behavior, then it could potentially correct the problem later on so that there aren't multiple reoffenses.

Mr. MCNERNEY. I mean, it is my impression that reoffenses are really the dangerous incidents.

Dr. NORDSTROM. That is, you know, the highest sort of risk are those people that have very high blood alcohol levels, you know, above 0.15. The multiple reoffenders and the polyusers, those people account for about 70 percent of the DUI deaths, so that those really high-risk people are the ones that we need to be focusing on.

Mr. MCNERNEY. Well, thanks. What are some of the things that would be helpful for NHTSA to examine in conducting the study?

Dr. NORDSTROM. So I think that there are a number of things, but I think really being able to get to the point where we can meet the sort of standards, like the Daubert standards for expert testimony. And so that is going to take a significant amount of kind of work to be able to correlate what we are seeing in terms of performance decrements so that, when an expert goes into court and says that they have noticed that this is, you know, what they have observed, that it can hold up to rigorous cross examination so that the jury can have confidence that there actually was a deficit there.

Mr. MCNERNEY. So there is really opportunity for improvement in impaired driving?

Dr. NORDSTROM. Yes, sir.

Mr. MCNERNEY. Thank you. Thank you.

Ms. Chase, I am going to talk a little bit about cybersecurity issues with regard to all the safety. Today's cars really are computers on wheels, and they can be hacked. There was an incident in 2015 where two white hat hackers cybercommandeered a Jeep Grand Cherokee, and so that has caused some change in the rules. As cars become increasingly interconnected, are you concerned that cybersecurity could pose a threat to safety?

Ms. CHASE. We are absolutely concerned about hacking and threats to cars as they become more and more computerized, and there needs to be some Federal action on this to protect both the people in the car and all of us who are surrounding, including pedestrians, bicyclists, and other road users.

Mr. MCNERNEY. But what steps are the automobile industry now taking to help prevent that?

Ms. CHASE. I can't speak to what the auto industry is doing right now, but what I can offer is that there should be some Federal re-

quirements that cars are not able to be hacked to the best of the ability of the intelligence that is available now.

Mr. MCNERNEY. So is NHTSA taking steps?

Ms. CHASE. Not to my understanding.

Mr. MCNERNEY. So then it is kind of up to Congress to do something?

Ms. CHASE. I would urge Congress to take steps to move this along.

Mr. MCNERNEY. OK. I thank the witnesses, and I yield back.

Ms. SCHAKOWSKY. The gentleman yields back, and now I recognize Mr. Carter for 5 minutes.

Mr. CARTER. Thank you, Madam Chair, and thank all of you for being here, very important information.

Mr. Nordstrom, as Dr. Bucshon alluded to earlier, currently I am the only pharmacist serving in Congress. And this is extremely important to me, particularly as it relates to medications and how they are impairing people, and particularly when they are operating machinery, especially cars and trucks and that type of thing.

Do you see this on the rise? Do you see a rise in the rate of drug-impaired driving?

Dr. NORDSTROM. Yes, sir, absolutely. That, you know, the National Roadside Survey found that 22 percent of drivers tested positive for illegal, prescription, or over-the-counter medication.

Mr. CARTER. Now, illegal prescription, are these prescriptions——

Dr. NORDSTROM. Illegal, comma, prescription, comma, or over-the-counter medication.

Mr. CARTER. So they were prescribed to them?

Dr. NORDSTROM. Some of the time. Yes, sir.

Mr. CARTER. OK. Well, OK. Let's just assume they were prescribed for them and they were taking them like they were supposed to be, but still they shouldn't have been behind the wheel and using these medications.

Dr. NORDSTROM. I mean, absolutely that happens.

Mr. CARTER. OK. And any idea of any factors that led to this increase or that have led to an increase? I mean——

Dr. NORDSTROM. You know, sir, I don't need to tell a pharmacist how much more medication is being consumed in this country——

Mr. CARTER. Right.

Dr. NORDSTROM [continuing]. You know, I mean, when it comes to opioids, we know we are 4 percent of the world population and we consume about 80 percent of the world's opioids, right. More and more, people are taking medication and they are doing all kinds of things, including driving, you know, and so there is certainly more of that happening.

Mr. CARTER. Outside of opioids and marijuana, any other particular medication, any other particular class of medications that you see?

Dr. NORDSTROM. No, you know, I mean, obviously when we are talking about medications, the other things that we would worry about are benzodiazepines and other sedative hypnotics. That could certainly impair judgment and performance.

Mr. CARTER. Let me ask you specifically about marijuana. In full disclosure, I am not a fan. I am absolutely, adamantly opposed to

the recreational use of marijuana. Nevertheless, I understand there are States that have legalized it. Do you see an increase in impaired driving in those States?

Dr. NORDSTROM. From the data that we have seen coming out of—especially Washington has done a really incredible job tracking their data, and it is one of the things that we would really encourage States to do is to look at Washington's example of measuring so that they can see——

Mr. CARTER. So how are they measuring?

Dr. NORDSTROM. So what Washington actually did is they went back and they looked at blood samples from before they legalized for different crashes and cases so that they could see what happened pre and post. And, you know, they have seen an increase, and I think it is just very important that other States as they contemplate legalizing that they think about doing that kind of rigorous measurement, so that they can see what is happening after they make a change in policy so that they know then how they are going to respond.

Mr. CARTER. Are there any tests out there? I mean, you know, we had a Breathalyzer and we can test for alcohol. What about for marijuana? I mean, are there any—I am not familiar with it. Georgia is not—it is not legal yet in Georgia, and I hope it won't be. But nevertheless, I am just not familiar with it.

Dr. NORDSTROM. So there are oral fluid assays that can be done, and there are portable oral fluid kits that can be done at the roadside that look specifically for THC and active THC metabolites. And that is about as—apart from doing bloodwork and then GCMS, that is what we have got right now.

Mr. CARTER. OK. I don't mean to be redundant, and I came in on the tail end of Dr. Bucshon's questions, but in your testimony you mentioned there is a huge opportunity for collaboration with healthcare practitioners and pharmacists on this issue. What do you see as the collaborative process, and how can pharmacists play a role?

Dr. NORDSTROM. Well, I certainly think that the communication between physicians and pharmacists could always be better. You know that as an addiction psychiatrist I have great relationships with our pharmacists, because frequently people would act one way in front of me and then when they are in a retail setting that they would act in a very different way, and they forgot that there was a licensed healthcare professional who is still assessing them.

So we would get very, very good information back from the pharmacists, and because we had them sign the HIPAA releases, we could speak with pharmacists. And so, I mean, I think that that kind of communication, though, needs to really happen between prescribers, so not just physicians but any prescriber, and the pharmacist on the dispensing end to make sure that if—because if I made an oversight or an omission, the pharmacist would catch it, would call me, and we made sure that the communication was tight.

Mr. CARTER. Great. Well, and, you know, just when I was still practicing pharmacy, you know, it was routine when I would dispense the medication, I would tell them, "Look, this is going to

make you drowsy. Be careful if you are driving." I mean that was just routine of what we did for patient counseling.

Dr. NORDSTROM. And I think that is the kind of thing we need to be doing more of, sir.

Mr. CARTER. Right, OK. Well, thank you very much, and I yield back.

Ms. SCHAKOWSKY. I now recognize Congresswoman Castor for 5 minutes.

Ms. CASTOR. Well, thank you, Madam Chair, for calling this hearing on how we make our cars safer, and I want to thank the witnesses for sharing your expert points of view. And, Ms. Livingston, thank you for sharing your very personal story of your wonderful parents. I am sorry.

You know, automobile defects were identified over 10 years ago. Ten years ago the Society of Automotive Engineers identified the dangers posed by keyless ignition systems, two years later NHTSA proposed a rule that would require automobiles to provide supplementary warnings when a driver inadvertently left a keyless ignition vehicle running, and yet 8 years later, now there is still no final rule.

The result has been at least 21 documented cases of people dying from carbon monoxide poisoning after accidentally leaving a keyless ignition vehicle running. I mean, automobile defects that were identified over 10 years ago should not be causing deaths in 2019.

Ms. Livingston, the vehicle that killed your parents was a 2017 Toyota Avalon, which was manufactured several years after automakers identified carbon monoxide hazards tied to keyless ignition systems and several years after NHTSA proposed standards to reduce those risks. Do you believe that the auto industry failed to protect your parents? Do you believe that NHTSA failed to protect your parents?

Ms. LIVINGSTON. Absolutely.

Ms. CASTOR. Ms. Chase, I am concerned that NHTSA's hands-off approach to addressing safety issues like keyless ignition systems is costing lives. Why—you know, 10 years—why has NHTSA not finalized the rule to protect the public? I mean, it is going to take an act of Congress now to do this? But they have had all of the evidence. How can we ensure that NHTSA proactively identifies and addresses these sorts of automobile safety issues?

Ms. CHASE. You have identified the issue perfectly. And the inaction at the agency is why the PARK IT Act and other pieces of legislation that we have discussed today are critical, because it is not moving and people are dying. And there is technology that is existent and inexpensive that could be put in all cars today.

So I urge this subcommittee then to move these bills through, and let's get them to the floor and start saving lives.

Ms. CASTOR. So that is the PARK IT Act, and hopefully it will be moving. On the Hot Cars Act, a friend of mine—I went grocery shopping with a friend of mine recently. They have a new vehicle and they—you know, this is Tampa, Florida, we are talking about—they wanted to make another stop at a different store and I said, "But you can't. Your groceries are going to bake, and they are going to be ruined."

And they said, "No, look at this." In this vehicle there is—the temperature will, the air conditioning will come on as it is parked if the temperature in the car goes up too high. Is that one of the answers?

Ms. CHASE. That is one of the answers. So what is needed is a detection system, so there must have been in whatever vehicle that was a detection system that——

Ms. CASTOR. If it hit a certain temperature internally then the a/c would come on for——

Ms. CHASE. So that is one solution. So it has the detection system, it kicks in the a/c, or it could also kick in the horn beeping, or, you know, you get a notification on your phone. There are a number of different ways that this problem can be solved.

And what is so critical about the Hot Cars bill is that it doesn't mandate one over the other, it just mandates that the problem be solved. And there are different ways. There are different innovators that can solve this problem, including the one that you just mentioned.

Ms. CASTOR. And we were just talking about groceries, but children are dying.

Ms. CHASE. Children are dying, animals are dying, and it is unnecessary.

Ms. CASTOR. And again, it looks like it is going to take an act of Congress when it shouldn't. The agency should be more proactive.

Ms. CHASE. I agree with you.

Ms. CASTOR. A person's gender should not determine whether he or she is injured or killed in an automobile crash, but researchers have found that women are 73 percent more likely to die or suffer severe injuries in a car crash than a man. And a study from the University of Virginia suggests that female crash dummies may contribute to this troubling trend.

According to the study, female crash dummies do not appropriately account for the size and weight of an average woman. Inaccurate test dummies can lead to ineffective safety measures. Are you aware of this study, and what factors do you think are contributing to the discrepancy here between men and women and car crashes?

Ms. CHASE. In honesty, I have read the highlights of the study but not the extensive study. Some of my staff have. But I am aware of the problem, and there needs to be more different types of crash dummies that are more reflective of people's body sizes and weights so that the equipment that is put into cars will be responsive and protect them as they should.

Ms. CASTOR. Thank you very much.

And I hope, Madam Chair, you will look into this with me. Thank you.

Ms. SCHAKOWSKY. Fascinating questions and answers, or things that need to be answered.

I now recognize Congresswoman Kelly for 5 minutes of questioning.

Ms. KELLY. Thank you, Madam Chair. And I want to thank you and the ranking member for holding this hearing. It is so important. I too have left my car running, and both times—one time I

was trying to make the train and when I came back, I wondered why my gas was so low. And the second time I had actually parked it under Cook County's building and left the car running all day, so I can relate to what you guys are saying.

Ms. Livingston, you made a comment, "Thanks for having the hearing, and you know it is a busy day today," but I could say on behalf of this committee, we are never too busy to save lives. That is what this committee is about, so thank you for being here.

Safety should be a standard feature of every new vehicle, not an add-on that a consumer has to pay for. The level of safety in your car should not depend on the size of your wallet. But many existing and emerging safety technologies, such as automatic emergency brakes, where automatic braking, blind spot detection, and lane departure warnings are sold as luxury items which must be purchased for an extra fee or as part of an expensive add-on package, these additional costs may put these lifesaving technologies out of reach for many Americans. Automatic emergency brakes are not the same as leather seats. Lane departure warnings are not the same as a Bluetooth-enabled stereo.

Do you believe that selling safety-enhancing features such as backseat warnings or a keyless ignition override as part of accessory packages with a bunch of other gear like luxury floor mats and wheel locks discourages consumers from buying cars with crucial safety features? Any of you can answer.

Ms. CHASE. I could not have said it better than you just did that these safety features should be in all new vehicles, and they should not be packaged with a moon roof or a heated steering wheel. They should be—these are proven technologies to reduce crashes, save lives, and prevent injuries. The only reason that they are not being put into all new cars now is that more money can be made from selling them as luxury packages, or they are in some high-end vehicles that not everyone can afford.

Ms. KELLY. Sure.

Either one of you, any comments?

Ms. LIVINGSTON. I totally agree with you. These are things that are readily available, should be in every car, and we do need an act of Congress. That is just the way it is. And the car industries have proven over more than a decade that for the keyless ignition that they haven't voluntarily put these protections in, and some say that it could be only 60 cents a car in that particular case. But to call things that are for safety a luxury is just wrong.

Dr. NORDSTROM. Well, ma'am, it is a bit outside my lane as the Director of Responsibility.org, but certainly, I mean, as a consumer I couldn't find fault with a single word that has been said here.

Ms. KELLY. And, in the panel's opinion, are there certain advanced safety technologies that should no longer be an option but should be standard on all vehicles?

Ms. CHASE. Obviously, the hot cars technology and the cutoff switch for the keyless ignition switch, additionally automatic emergency braking, lane departure warning, blind spot detection, just to name a few that have been proven by the Insurance Institute for Highway Safety to reduce crashes.

We know that these are effective. They should be in all cars as standard equipment, and there should be performance standards

for them, so that if somebody calls something a particular name, we know that it will respond the way that it is expected to.

Ms. KELLY. OK, going back to watching people's pocketbooks, what do you think can be done to retrofit all cars? Everybody can't afford to buy a new car or, you know, everybody can't afford some of the luxury cars.

Ms. CHASE. I think there needs to be some more research and studies done on how retrofits can be effected. I can say, in terms of the hot cars, I have seen some aftermarket products. I don't know the verification of them, but I have seen them.

And so, the problem therein, though, is that no one really thinks that they are going to leave their child or that their child is going to climb in, so that would put it incumbent upon the consumer to go out and buy the aftermarket product. That is why it needs to be standard, so that people, you know, have that safety insurance without even thinking about it.

Ms. LIVINGSTON. I just wanted to mention on the keyless ignition on how both GM and Ford embraced going in and making a change and did a recall so that the older vehicles would have it put in. It is possible to do. Technically, I think Toyota's announcement that the new cars will have it is great. However, there are a lot of cars out there and they will be on the road 7 or 8 years, and I think a recall is in order for that so more people don't die.

Ms. KELLY. Good idea.

Madam Chair, I yield back.

Ms. SCHAKOWSKY. The gentlelady yields back, and I now recognize Mr. Rush for 5 minutes.

Mr. RUSH. I want to thank you, Madam Chair, and the ranking member for conducting this hearing. It has been fascinating to witness, and I certainly want to join with all my colleagues in commending Ms. Livingston, whose courage to take her pain and turn it into a pursuit of well-being for all Americans is totally commendable, and we certainly want to express our appreciation to you. You didn't have to do it, but you are doing it, and we thank you so much for all your work and your effort.

Ms. Chase, in your testimony you discussed the role that technology can play in increasing vehicle and pedestrian safety. Specifically, technologies like the AEB, the Automatic Emergency Braking, are important factors in decreasing crash-related injuries. That is why I was pleased to see the 2016 voluntary agreement implemented in AEB from 20 vehicle manufacturers.

In one instance, NHTSA has announced that it will accelerate its research into advanced AEB systems that include pedestrian and bicyclist application. They have not done enough. And that is why this morning I, along with seven of my Democratic colleagues on this subcommittee, sent a letter to NHTSA asking for an update on implementation of this advanced technology.

That being said, can you please expand upon why this technology is so important to pedestrian and bicyclist safety and what other technologies should also be considered?

Ms. CHASE. Congressman, thank you for your leadership, and I look forward to reading your letter after the hearing is concluded.

Mr. RUSH. Right.

Ms. CHASE. AEB is an essential piece of technology that should be in all cars because the problems of impairments like we discussed, and distraction among others, is prevalent in our motoring public. And AEB, if someone is distracted or impaired, will detect is it object or a person in front—hopefully a person—that is an advanced AEB system—is in front of them, and if a person doesn't brake, it will brake for them.

I would just like to make a side note about the voluntary agreement. While it may seem like a step forward, we really would like to see a minimum performance standard, because with a voluntary agreement a company can walk away from it. A company can also call something a system, name it something, but we don't know how it truly performs.

So we would like to see the added step of it first being required as a standard equipment and then also there being a minimum performance standard for the technology.

Mr. RUSH. Thank you.

Congresswoman Kelly asked a lot of questions that I want to pursue. Most of my constituents don't have new cars. Most of them have used cars. And 5 years down the road, new cars that are online that will be purchased today and tomorrow will also be used cars, and cars that may or may not have this advanced technology. And I understand that there could possibly be devices that will be marketed for to deal with some of these issues that we have been discussing.

But what I would like you to inform this committee about is what role can the Congress play in addressing the issues of some of the older model cars in terms of how can we use this legislative perspective that we have to address the issues of older cars that are still a threat to life, limb, and safety.

Ms. CHASE. As the proud owner of a 15-year-old minivan, I hear you. And what I would encourage Congress to do is to find out what NHTSA is doing on this issue. And then also I would like to work with you and your staff to see if there are any legislative solutions to this problem, because it is a problem. There are a lot of used or secondhand vehicles on the road, and they should not be, you know, they should have the advances that are available in new cars. So I look forward to working with you to see where we can go on this.

Mr. RUSH. Thank you. Madam Chair, I yield back.

Ms. SCHAKOWSKY. I want to thank all of the witnesses. This was just really wonderful testimony today. Thank you for your participation. There is a lot of followup that we need to do.

I want to remind Members that, pursuant to committee rules, they have 10 business days to submit additional questions for the record to be answered by witnesses who have appeared. And I want to ask each of the witnesses to, please, if you get questions to respond as promptly as possible to those questions.

At this time, the—let's see. Before that—so these are things I would ask unanimous consent to insert into the record. Where are we? OK. We have a letter from the College Church—oh, I am sorry. OK, we have a letter from Colleen Church, advisor and counsel to Responsibility.org, a letter from the daughter of a carbon monoxide poisoning victim, a letter from the son of a carbon monoxide poi-

soning victim, a letter from the American Property Casualty Insurance Association. Is that it? So, without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Ms. SCHAKOWSKY. And the committee is now adjourned.

[Whereupon, at 12:14 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

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(Original Signature of Member)

116TH CONGRESS
1ST SESSION

H. R. 3888

To required the Administrator of the National Highway Traffic Safety Administration to conduct a study on motor vehicle safety and impaired driving, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Mrs. MCMORRIS RODGERS (for herself and Mr. MCNERNEY) introduced the following bill; which was referred to the Committee on

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A BILL

To required the Administrator of the National Highway Traffic Safety Administration to conduct a study on motor vehicle safety and impaired driving, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Impaired Driving Study Act of 2019".

SEC. 2. NHTSA STUDY ON MOTOR VEHICLE SAFETY AND IMPAIRED DRIVING.

(a) STUDY.—The Administrator of the National Highway Traffic Safety Administration shall conduct a study on the ways in which the Administration can improve motor vehicle safety, as defined in section 30102 of title 49, United States Code, to address impaired driving, including alcohol, marijuana, and opioid-impaired driving.

(b) REPORT.—Not later than 2 years after the date of enactment of this Act, and biannually thereafter, the Secretary of Transportation, in cooperation with other Federal agencies, as appropriate, shall submit to the Committee on Energy and Commerce of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report on the following:

(1) A description of the activities undertaken pursuant to subsection (a).

(2) An update on the progress of the study pursuant to subsection (a).

(3) The results of the study once it is completed.

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116TH CONGRESS
1ST SESSION

H. R. 3593

To require the Secretary of Transportation to issue a rule requiring all new passenger motor vehicles to be equipped with a child safety alert system, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JUNE 28, 2019

Mr. RYAN (for himself, Ms. SCHAKOWSKY, and Mr. KING of New York) introduced the following bill; which was referred to the Committee on Energy and Commerce, and in addition to the Committee on Transportation and Infrastructure, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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A BILL

To require the Secretary of Transportation to issue a rule requiring all new passenger motor vehicles to be equipped with a child safety alert system, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Hot Cars Act of 2019".

SEC. 2. FINDINGS AND PURPOSE.

(a) FINDINGS.—Congress finds the following:

(1) Children and domestic animals left unattended in vehicles, or independently accessing unoccupied vehicles on their own, are a significant public health and safety problem.

(2) Thirty-eight children on average are killed by hyperthermia each year as a result of being left unattended in a vehicle or as a result of gaining access independently into an unoccupied vehicle.

(3) In 2018, at least 52 children were killed by hyperthermia as a result of being left unattended in a vehicle or as a result of gaining access independently into an unoccupied vehicle.

(4) Between 1990 and 2018, at least 889 children have been killed by hyperthermia as a result of being left unattended in a vehicle or as a result of gaining access independently into an unoccupied vehicle. Of those deaths, where the circumstances were known, 27 percent were the result of the child accessing the vehicle independently.

(5) Fourteen percent of parents reported leaving a child 6 or younger in a parked, locked car alone. According to a 2014 Public Opinion Strategies survey, fourteen percent of parents reported leaving a child six or younger in a parked, locked car alone. The survey finds that, according to United

States Census data, that's nearly 2,000,000 United States parents transporting more than 3,300,000 United States children.

(6) In 2018, at least 57 domestic animals were killed as a result of being left unattended in a vehicle.

(7) Technology currently exists to detect the presence of a child in the rear seat of a vehicle.

(b) PURPOSE.—The purpose of this Act is to reduce the deaths and injuries that result from occupants being left in unattended vehicles as well as instances in which children independently access an unoccupied vehicle.

SEC. 3. OCCUPANT SAFETY.

(a) AMENDMENT.—

(1) IN GENERAL.—Chapter 323 of title 49, United States Code, is amended by adding after section 32304A the following new section:

"§ 32304B. Occupant safety

"(a) DEFINITIONS.—In this section:

"(1) PASSENGER MOTOR VEHICLE.—The term 'passenger motor vehicle' has the meaning given that term in section 32101.

"(2) REAR DESIGNATED SEATING POSITION.—The term 'rear designated seating position' means

all designated seating positions that are rearward of the front seat.

"(3) SECRETARY.—The term 'Secretary' means the Secretary of Transportation.

"(b) RULEMAKING.—Not later than 2 years after the date of the enactment of the Hot Cars Act of 2019, the Secretary shall issue a final rule requiring all new passenger motor vehicles with a gross vehicle weight of 10,000 pounds or less to be equipped with a system to detect the presence of an occupant in a rear designated seating position after the vehicle engine or motor is deactivated and engage a warning. In developing the rule required under this subsection, the Secretary shall consider requiring systems that also detect the presence of any occupant unable to independently exit the vehicle as well as detect the presence of a child who has entered an unoccupied vehicle independently.

"(c) MEANS.—The alert required under subsection (b)—

"(1) shall include a distinct auditory and visual alert to notify individuals inside and outside of the vehicle of the presence of an occupant, which shall be combined with an interior haptic warning; and

"(2) shall be activated when the vehicle motor is deactivated by the operator and the presence of an occupant is detected.

"(d) PHASE-IN.—The rule issued pursuant to subsection (b) shall require full compliance with the rule not later than 2 years after the date on which the final rule is issued.".

(2) CLERICAL AMENDMENT.—The analysis for Chapter 323 of title 49, United States Code, is amended by striking the item relating to section 32304A and inserting the following:

"32304A. Consumer tire information and standards.
"32304B. Occupant safety.".

(b) AWARENESS OF OCCUPANTS IN MOTOR VEHICLES.—Section 402 of title 23, United States Code, is amended by inserting after subsection (k) the following:

"(l) UNATTENDED PASSENGERS.—

"(1) IN GENERAL.—Each State shall use a portion of the amount it receives under this section to carry out a program to educate the public on the risks of leaving an occupant in a vehicle.

"(2) PROGRAM PLACEMENT.—A State does not need to carry out the program described in paragraph (1) through the State transportation or highway safety office.".

(c) STUDY AND REPORT.—

(1) INDEPENDENT STUDY.—

(A) AGREEMENT.—

(i) IN GENERAL.—The Secretary of Transportation shall enter into an agreement or a contract with an independent third party that does not have any financial or contractual ties with passenger motor vehicle manufacturers or technology companies producing occupant reminder warning systems or child restraint systems to perform the services under this paragraph.

(ii) TIMING.—The Secretary shall enter into the agreement or contract described in clause (i) not later than the date that the Secretary determines is the latest date by which completion of the services under this paragraph will allow the Secretary enough time to prepare and submit the study required under paragraph (2) in accordance with such paragraph.

(B) INDEPENDENT STUDY.—

(i) IN GENERAL.—Under an agreement between the Secretary and an independent third party under this paragraph,

the independent third party shall carry out a study on retrofitting existing passenger motor vehicles with technology to address the problem of occupants left unattended in motor vehicles.

(ii) ELEMENTS.—In carrying out the study required under clause (i), the independent third party shall—

(I) survey and evaluate a variety of methods used by current and emerging aftermarket technology or products to solve the problem of occupants being left unattended in the vehicle or occupants gaining access to the vehicle independently;

(II) make recommendations for manufacturers of such technology or products to undergo a functional safety performance to ensure that the products perform as designed by the manufacturer under a variety of real world conditions; and

(III) provide recommendations for consumers on how to select such

technology or products in order to retrofit existing vehicles.

(2) REPORT.—During the 180-day period beginning on the date on which the Secretary of Transportation issues the final rule required under section 32304B(b) of title 49, United States Code, as added by subsection (a)(1), the Secretary shall submit the results of the study carried out under paragraph (1) to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Energy and Commerce of the House of Representatives.

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116TH CONGRESS
1ST SESSION

H. R. 3145

To require the Secretary of Transportation to finalize rules to protect consumers from the risks of carbon monoxide poisoning and rollaways from motor vehicles, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JUNE 5, 2019

Ms. SCHAKOWSKY (for herself, Mr. SOTO, Mr. MOULTON, and Mr. KENNEDY) introduced the following bill; which was referred to the Committee on Energy and Commerce

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A BILL

To require the Secretary of Transportation to finalize rules to protect consumers from the risks of carbon monoxide poisoning and rollaways from motor vehicles, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Protecting Americans from the Risks of Keyless Ignition Technology Act" or the "PARK IT Act".

SEC. 2. RULEMAKING TO INSTALL AUTOMATIC SHUTOFF SYSTEMS AND ROLLAWAY PREVENTION TECHNOLOGY IN MOTOR VEHICLES.

(a) DEFINITIONS.—In this section:

(1) KEY.—The term "key" has the meaning given the term in section 571.114 of title 49, Code of Federal Regulations (or successor regulations).

(2) MANUFACTURER.—The term "manufacturer" has the meaning given the term in section 30102(a) of title 49, United States Code.

(3) MOTOR VEHICLE.—

(A) IN GENERAL.—The term "motor vehicle" has the meaning given the term in section 30102(a) of title 49, United States Code.

(B) EXCLUSIONS.—The term "motor vehicle" does not include—

(i) a motorcycle or trailer (as those terms are defined in section 571.3 of title 49, Code of Federal Regulations) (or successor regulations); or

(ii) any motor vehicle that is rated at more than 10,000 pounds gross vehicular weight.

(4) SECRETARY.—The term "Secretary" means the Secretary of Transportation.

(b) AUTOMATIC SHUTOFF SYSTEMS FOR MOTOR VEHICLES.—

(1) FINAL RULE.—

(A) IN GENERAL.—Not later than 2 years after the date of enactment of this Act, the Secretary shall issue a final rule amending section 571.114 of title 49, Code of Federal Regulations (relating to Federal Motor Vehicle Safety Standard Number 114), to require manufacturers to install technology in each motor vehicle equipped with a keyless ignition device and an internal combustion engine to automatically shut off the motor vehicle after the motor vehicle has idled for the period designated under subparagraph (B).

(B) PERIOD DESCRIBED.—

(i) IN GENERAL.—The period referred to in subparagraph (A) is the period designated by the Administrator of the National Highway Traffic Safety Administration as necessary to prevent carbon monoxide poisoning.

(ii) DIFFERENT PERIODS.—The Administrator of the National Highway Traffic Safety Administration may designate

different periods under clause (i) for different types of motor vehicles, depending on the rate at which the motor vehicle emits carbon monoxide, if—

(I) the Administrator determines a different period is necessary for a type of motor vehicle for purposes of section 30111 of title 49, United States Code; and

(II) requiring a different period for a type of motor vehicle is consistent with the prevention of carbon monoxide poisoning.

(2) DEADLINE.—The rule under paragraph (1) shall become effective on September 1 of the year that is 1 year after the date on which the Secretary issued that rule.

(c) PREVENTING MOTOR VEHICLES FROM ROLLING AWAY.—

(1) REQUIREMENT.—Not later than 2 years after the date of enactment of this Act, the Secretary shall issue a final rule amending part 571 of title 49, Code of Federal Regulations, requiring manufacturers to install technology in motor vehicles equipped with keyless ignition devices and automatic

transmissions to prevent movement of the motor vehicle if—

(A) the transmission of the motor vehicle is not in the park setting;

(B) the motor vehicle does not exceed the speed determined by the Secretary under paragraph (2);

(C) the door for the operator of the motor vehicle is open;

(D) the seat belt of the operator of the motor vehicle is unbuckled; and

(E) the service brake of the motor vehicle is not engaged.

(2) DETERMINATION.—The Secretary shall determine the maximum speed at which a motor vehicle may be safely locked in place under the conditions described in subparagraphs (A), (C), (D), and (E) of paragraph (1) to prevent vehicle rollaways.

(3) DEADLINE.—The rule under paragraph (1) shall become effective on September 1 of the year that is 1 year after the date on which the Secretary issues that rule.

○

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(Original Signature of Member)

116TH CONGRESS
1ST SESSION

H. R. 3890

To require the Secretary of Transportation to provide funds to address motor vehicle safety and impaired driving, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Mr. BUCSHON (for himself and Mrs. DINGELL) introduced the following bill; which was referred to the Committee on _____

A BILL

To require the Secretary of Transportation to provide funds to address motor vehicle safety and impaired driving, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Combatting Impaired Driving Act of 2019".

SEC. 2. MOTOR VEHICLE SAFETY AND IMPAIRED DRIVING.

(a) AUTHORIZATION OF FUNDS.—The Secretary of Transportation shall provide funding for grants, pilot pro-

gram activities, demonstration projects, and innovative solutions to improve motor vehicle safety, as defined in section 30102 of title 49, United States Code, to address impaired driving, including alcohol, marijuana, and opioid-impaired driving.

(b) FUNDING AMOUNT.—There is authorized to be appropriated to the Secretary to carry out subsection (a), amounts as follows:

(1) $7,000,000 for fiscal year 2021.

(2) $9,000,000 for fiscal year 2022.

(3) $9,000,000 for fiscal year 2023.

(4) $10,000,000 for fiscal year 2024.

(5) $10,000,000 for fiscal year 2025.

July 22, 2019

The Honorable Jan Schakowsky

Chairwoman

Subcommittee on Consumer Protection and Commerce

United States House of Representatives

Washington, D.C. 20515

The Honorable Cathy McMorris Rodgers

Ranking Member

Subcommittee on Consumer Protection and Commerce

United States House of Representatives

Washington, D.C. 20515

Dear Chairwoman Schakowsky and Ranking Member Rodgers:

Thank you for this week's hearing on Legislation to Make Cars in America Safer and for your longstanding leadership to improve safety on our nation's roadways. My name is Colleen Sheehey-Church and I serve an Advisor and Consultant to Responsibility.org.

In previous years I have testified on Capitol Hill as the National President of Mothers Against Drunk Driving (MADD). I was honored to testify before this subcommittee a little over one year ago on this topic. Thank you for your continuing leadership on this important issue.

Impaired driving continues to be a crisis in our country and that's why I continue to work toward a day when it can come to an end. Like so many thousands of other people, my work on this issue began when a loved one's life ended.

My son Dustin Church was killed by an impaired driver on July 10, 2004. It's hard to believe it has now been 15 years. He has been gone almost longer than he lived on this earth.

Dustin was only 18 years old, had just graduated from high school and had his whole life ahead of him.

That fateful night, Dustin was not drinking. He was doing what most kids like to do and was hanging out with friends when they decided to go grab a pizza. My husband Skip and I had talked to both of our sons about not drinking until age 21 and never drinking and driving. I am so proud that he didn't make any of those mistakes.

We also talked to our sons about the dangers of riding in a car with an impaired driver. But that night, Dustin needed a ride and he made a fatal mistake. He got into a car driven by a 19-year old female who

had been consuming alcohol, marijuana and PCP. She was a polysubstance-impaired driver. She lost control of her car, careened off the road, flipped and landed in a river.

The driver and a front seat passenger escaped. But Dustin did not. In the back seat and unable to escape, he drowned. He had made so many good choices that night: He was wearing his seatbelt. Tests showed that Dustin was completely sober. We will never know why he got into that car.

Early the next morning, Skip and I got that knock on the door that no parent should ever receive. The pain of losing someone so senselessly to a 100 percent preventable crime never goes away. If I can prevent even one person from experiencing that needless heartbreak through my advocacy work, then it helps me honor Dustin's life.

In 2017, 10,874 families got the same knock on the door that we did. That's why we must work harder than ever to eliminate drunk and drugged driving.

The laws that the United States Congress and state legislatures have passed during the last four decades have helped reduce drunk and drugged driving crashes by more than fifty percent. But we have so much work left to do. The good news is we have very promising solutions at hand.

Driver Alcohol Detection System for Safety (DADSS) – Alcohol Detection Technology

I remember when I was on MADD's board in 2006 and we came up with the concept of a car that wouldn't start if the driver was at a .08 BAC level or above. We launched the Campaign to Eliminate Drunk Driving around it and said, "The Car is the Cure." It was even highlighted in Time Magazine's 2011 List of 50 Best Inventions. What was once a dream is nearly a reality! Several states have invested in testing the technology (Virginia was the first) and DADSS will be the most lifesaving DUI countermeasure in history with the potential to reduce drunk driving deaths by 6,000 or more per year.

By the end of this year, a prototype will be ready for testing in fleet vehicles at a .02 BAC. It's not yet ready for consumers. The size needs to be reduced, reliability needs to be improved, it needs to be a truly passive device and it needs to be set at .08, but the developers are confident that they are on track as originally scheduled for delivery of the consumer product in 2023/2024 for breath-based technology and 2025 for touch-based technology.

Please reauthorize the funding for this program to allow it to reach completion. Responsibility.org is in full support of DADSS. With your help, this life saving technology will become a reality.

High-Risk Impaired Drivers

Repeat DUI offenders, people who drive at high BAC levels at .15 or above and/or people who drive impaired by more than one substance pose a higher crash risk, are involved in more fatal crashes, and are more likely to have a substance use and/or mental health disorder.

Responsibility.org supports screening and assessment for all DUI offenders using a tool that is validated for DUI offenders to ensure that any substance use disorders, and mental health issues are identified and addressed as part of an offender's sentence to prevent repeat DUI offenses. Additionally, high risk offenders need to be monitored to ensure they comply with their sentences as they are often at a high risk of recidivism.

Ignition Interlocks for all DUI Offenders

Responsibility.org supports the use of ignition interlocks for all DUI offenders. This law has been passed in 33 states and research has shown interlocks to be incredibly effective in preventing DUI, especially when used in tandem with screening and assessment (and if indicated, treatment).

Drug-Impaired Driving Countermeasures

Drug-impaired driving is an issue of significant concern and it requires some different tactics such as specialized training for law enforcement, prosecutors, and judges. It is also necessary to ensure that toxicology labs are adequately funded to process blood samples in a timely manner. Additionally, there is a great need for improved data and public education on this issue. Responsibility.org has worked with its partners and with NHTSA and the United States Congress to focus on this issue along with drunk driving as part of its mission to eliminate impaired driving.

Summary

The woman who killed Dustin is now 34 years old. She served one year in jail as part of her plea bargain but then violated many conditions of her probation. She didn't install an interlock, did not get a job, drove without a driver's license and left the state without permission. Ultimately, those violations led her to serve another four years in jail.

There's another part of my story that I haven't told until today. My other son, Casey, has suffered terribly since Dustin died. The loss of a sibling is the loss of a lifetime. Casey struggled as he left for college. Away from home and dealing with grief on his own, he quietly suffered from depression.

His depression led to drug use. His drug use led to dropping out of college. He ended up committing a crime and being sent to jail where there was no treatment provided to him. When he was released, we tried to get him into an inpatient treatment facility. We worked so hard to find a place we could afford that had beds available. We were so desperate to save him. We could not lose our other son, our only living child.

We finally were able to admit him to parent-mandated rehabilitation at His Mansion in Deering, New Hampshire. I am so very proud and relieved to tell you that Casey recovered. He has been sober for 5 years now and remains at His Mansion as a counselor helping others. It has been a very long road for us all. But we are dedicated to helping others manage their grief, overcome their addiction and working to eliminate impaired driving.

I cannot thank you enough for your leadership and I look forward to assisting you in any way I can as you move forward in Congressional efforts to fight impaired driving.

Sincerely,

Colleen Sheehey-Church

Suzanne Zitser
952 Old Clinton Road
Westbrook, CT 06498

July 23, 2019

The Honorable Rep. Janice D. Schakowsky
Chairman
Subcommittee on Consumer Protection and Commerce
The Honorable Frank Pallone Jr.
Chairman
U.S. House Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515

To the Distinguished Members of the Committee:

I appreciate the opportunity the Committee has provided to share the story of my Dad's death of carbon monoxide poisoning caused by the flawed design of his keyless ignition vehicle.

On June 28, 2012, my brother, sister and I lost our father, Gerald Zitser, an 86-year-old healthy man, who rode his bicycle, and as an accomplished tenor saxophone player, played in several bands in the Boynton Beach area where he lived. One of his biggest passions was watching the New York Yankees. (He had been in the Navy with Yogi Berra so we were loyal Yankee fans.) The day before, he had gone grocery shopping and drove his keyless ignition Toyota Avalon into his attached garage, brought in the groceries, and closed the garage door. Several hours later he was found in his recliner with the Yankees game on, dead from carbon monoxide poisoning. The key fob was found in this shirt pocket. He had inadvertently left his car running when he shut the garage door. and as he waited for the game to start, poison was leaking into his house.

Shocked by his senseless death, our family started to do some research. How could this have happened? Our father had the key fob with him – how could the engine still be running, especially for an extended period of time? Had this happened to others? An internet search revealed that this was not the first occurrence. In Florida alone, we uncovered several similar deaths. My family resolved to contact Toyota, along with any relevant government agency to suggest that an automatic engine shut-off system that used the vehicle's suite of sensors to detect that it was running unoccupied -- much like the airbags in the passenger side detects no passenger in the seat -- could have prevented this tragedy.

Little did we know that at the time of my father's death, the auto industry and the National Highway Traffic Safety Administration were well aware of this problem. In fact, two major automakers were already offering such a feature in their keyless ignition vehicles. This made Toyota's response all the more disappointing: Toyota assigned the incident a case number, and offered to inspect the Avalon for a defect. But, several rounds of correspondence ended with no inspection or resolution.

During the last seven years, my family has been worked with organizations, such as Safety Research & Strategies, and journalists, to educate the motoring public and to encourage lawmakers, NHTSA and the industry to implement a solution.

The PARK IT Act has renewed my family's hopes that solutions will be required by the National Highway Traffic Safety Administration -- and that new rules will apply the same type of safety requirements that protect vehicle owners with traditional metal keys. Under the current safety standards, a driver who has a metal key in their pocket can be assured of two things: 1. The engine is off; and 2. The gearshift lever is in Park. Unfortunately, manufacturers and NHTSA have failed to provide these same assurances for keyless vehicles. At the same time vehicles have become quieter, the visual and audible indicators of the state of the engine and ignition state are not always apparent, and the key fob, which drivers are told is the "key" must be in the to start the car, but counterintuitively, the reverse is not true.

This bill will require NHTSA to mandate the very safety features that were intended under Federal Motor Vehicle Safety Standard 114 – and the manufacturers can do so for little to no cost. Several automakers have already made the changes, which can be achieved with small software modifications. Toyota recently announce its intent to begin doing so in most of their 2020 cars. Our family feels it is critical that legislature be passed by Congress to assure that all automakers must provide this minimum level of safety for all car owners.

Thank you for considering my family's story. Hopefully it will provide additional information as to why the PARKIT bill must be passed and made law by Congress.

Sincerely,

Suzanne Zitser

July 23, 2017

To the members of the House Consumer Protection and Commerce Subcommittee,

I am writing to share my family's story and strong support for the PARK IT Act. (H.R. 3145) The bill requires an automatic shut-off feature in all new motor vehicles to prevent the car from being inadvertently left running. An automatic shut-off feature is a cost effective, commonsense solution to an issue that is not going away without action.

On August 3, 2017 my father, Fred Schaub, was found dead from carbon monoxide poisoning inside his home. His death was caused by his keyless ignition vehicle that was unknowingly left running in the garage of his home. Myself and my 5 siblings lost our father that day because his vehicle did not have an automatic shut-off feature. Nothing is more devastating than knowing that a simple feature like this would have saved his life.

People, like my father, who have been driving a vehicle with a traditional keyed ignition their whole life are accustomed to knowing that their vehicle is off when they walk away with their keys or fob in-hand. This makes it very easy to unconsciously leave a keyless ignition vehicle running.

Individuals who have hearing deficits are at a much greater risk because they cannot hear if the vehicle is on or not. Even those with average hearing abilities may not be able to hear newer hybrid vehicles that run very quietly.

KidsAndCars.org has documented 39 fatalities and 84 injuries caused by carbon monoxide poisoning from vehicles with keyless ignitions. Already this month, two people have lost their lives after a keyless ignition vehicle was left running in the garage of their home. The PARK IT Act needs to be passed immediately before more families suffer the unbearable reality that my family faces every day.

My father was a beautiful, extraordinary person. He had the biggest heart and we miss him more and more every day.

In honor of my father and on behalf of my family, I strong urge you to pass the PARK IT Act. People's lives depend on it.

Thank you for your consideration on this urgent matter.

Sincerely,

Doug Schaub
dsautodoug@gmail.com
704-796-6782

American Property Casualty Insurance Association
INSURING AMERICA apci.org

NATHANIEL F. WIENECKE
SENIOR VICE PRESIDENT

July 23, 2019

The Honorable Jan Schakowsky
Chair
House Energy and Commerce
Subcommittee on Consumer Protection
and Commerce
2125 Rayburn House Office Building
Washington, DC 20515

The Honorable Cathy McMorris Rodgers
Ranking Member
House Energy and Commerce
Subcommittee on Consumer Protection
and Commerce
2122 Rayburn House Office Building
Washington, DC 20515

RE: Hearing on Legislation to Make Cars in America Safer

Dear Chair Schakowsky and Ranking Member McMorris Rodgers:

The American Property Casualty Insurance Association (APCIA) commends you for holding the hearing tomorrow entitled, "Legislation to Make Cars in America Safer."

APCIA is the primary national trade association for home, auto, and business insurers. APCIA promotes and protects the viability of private competition for the benefit of consumers and insurers, with a legacy dating back 150 years. APCIA members represent all sizes, structures, and regions – protecting individuals, families, communities, and businesses in the U.S. and across the globe.

The U.S. continues to experience a troubling increase in auto crashes and fatalities on the road – and marijuana-impaired driving is one of several factors believed to be contributing to the high number of motor vehicle deaths.

The National Safety Council preliminary data shows that over 40,000 people died and 4.56 million people were seriously injured in motor vehicle crashes in the United States in 2018. This is the third consecutive year that 40,000 people lost their lives in motor vehicle crashes.

As Congress considers legislation, there is an opportunity to address this deficiency by prioritizing the research and development of an objective marijuana impairment standard and adopt strong marijuana safety best practices including enforcement practices.

Marijuana Impairment Standard

It is indisputable that marijuana is an intoxicant and impairs those who use it. Marijuana use can slow reaction times and interfere with coordination, perception, judgment, and other critical abilities necessary for safe driving. As more states legalize marijuana, it is inevitable that there are more people driving under its influence.

The Highway Loss Data Institute found that collision claim frequency in Colorado, Nevada, Oregon, and Washington, all of which legalized marijuana for recreational use, was six percent higher than their neighboring states.[1] In Colorado, the Rocky Mountain High Intensity Drug Trafficking Area's Strategic Intelligence Unit released a report that found traffic deaths involving drivers who tested positive for marijuana more than doubled following the legalization of recreational marijuana.[2] Nonetheless, science and awareness of the risks associated with marijuana have received little mainstream attention.

Regardless of whether one supports or opposes legalizing marijuana, we can all agree on the importance of preventing marijuana impairment on our roads. Unfortunately, there is no standard or reliable methodology to determine marijuana impairment similar to how we detect alcohol impairment. When testing for alcohol impairment there is a clear correlation between the amount of alcohol in the blood and a level of impairment. Detecting marijuana impairment through a standardized test is more complicated.

Marijuana is metabolized by the body differently from alcohol. The level of THC (tetrahydrocannabinol), the psychoactive ingredient of marijuana, in the body can vary based on several factors, including how marijuana is ingested and the potency of the product. The level of THC can drop before a user experiences impairment, but traces of THC may still be found in the body weeks after using marijuana. This means that a positive test result for the presence of marijuana in someone's system does not necessarily mean he or she is impaired. In its March 2019, report, Michigan's Impaired Driving Safety Commission noted that blood-plasma concentrations are indicative of marijuana exposure but not a reliable indicator of impairment.[3]

In 2017, the National Highway Transportation Safety Administration (NHTSA) released a study on the effects of marijuana-impaired driving and reported that no reliable threshold or measurement methodology currently exists. NHTSA concluded that, until there is a scientific standard of impairment, the best test for marijuana impairment is an officer with advanced training in this area.[4] While APCIA supports enhanced law enforcement training to identify marijuana impairment to protect our roadways, research to develop an objective impairment standard and a reliable testing method needs to be a priority.

Few federal studies have evaluated the effect of marijuana use on driver performance. Government agencies face difficulties in developing marijuana impairment standards because of federal prohibitions. Specifically, the requirements that must be met to use marijuana in studies due to its status as a controlled substance under federal law and many state laws. The difficulties in conducting this research

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[1] *Crashes rise in first states to begin legalized retail sales of recreational marijuana*, IIHS News, October 18, 2018 at https://www.iihs.org/iihs/news/desktopnews/crashes-rise-in-first-states-to-begin-legalized-retail-sales-of-recreational-marijuana

[2] *The Legalization of Marijuana in Colorado: The Impact Volume 5, Update*, Rocky Mountain High Intensity Drug Trafficking Area, September 2018

[3] Report from the Impaired Driving Safety Commission, March 2019 at https://www.michigan.gov/documents/msp/Impaired_Driving_Report_650288_7.pdf

[4] Marijuana-Impaired Driving: A Report to Congress, National Highway Transportation Safety Administration (July 2017) at www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812440-marijuana-impaired-driving-report-to-congress.pdf.

will hopefully be addressed in the near future with the introduction of legislation by Congressman Blumenauer (D-OR). This legislation, H.R. 3797, proposes to amend the Controlled Substances Act to make marijuana accessible for use by qualified marijuana researchers for medical purposes. APCIA supports increased marijuana research and looks forward to working with Representative Blumenauer (D-OR) to advance this key issue.

Another factor complicating studies of marijuana's effect on drivers is that the potency of THC in marijuana (i.e., the concentration of THC) can vary from one plant to another. The marijuana produced by the only approved source of marijuana for federally funded research is considered by some researchers to be low quality (potency). Also, the way in which marijuana is processed can affect the potency of the product, and the way the user chooses to ingest marijuana may affect the level of THC in the body.

Research is being pursued at the state level. One promising study taking place in Colorado tests the blood of subjects smoking marijuana to measure the ratio of active and inactive cannabinoid metabolites. This indicates how recently marijuana has been used and how much a subject has used over time. Researchers see both measurements as indicators of impairment. The more recently marijuana has been used, the more impaired a subject is likely to be, but the more marijuana someone has used over time can create a tolerance which would make the subject less likely to be impaired. The expectation is that evaluating the ratio of active to inactive cannabinoid metabolites in a user's blood can approximate their impairment level.

Now is the time for Congress to address this deficiency by prioritizing the research and development of a marijuana impairment standard and enhanced law enforcement training. NHTSA itself recommended such a step in its July 2017 report to Congress, "Marijuana-Impaired Driving."

To address these critical lapses in our understanding of marijuana and its hazards, APCIA urges the subcommittee and Congress to:

- Support increased scientific research to develop objective marijuana impairment standards for auto and workplace safety and medical efficacy by allowing the Department of Transportation to fund highway safety research at the state level based on the laws of the respective states; and
- Promote increased awareness and education for the public and policymakers on the dangers of marijuana-impaired driving or working.
- Support efforts to gather better data on marijuana use among drivers involved in crashes and drivers arrested for impaired driving.

These are simple, common-sense needs to enhance our knowledge and understanding of marijuana and its risks, and to protect the roads, our workplaces and the public.

Adopt the Strongest Marijuana Safety Best Practices and Enforce Them

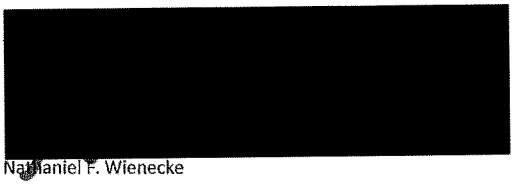
As with any intoxicant, marijuana impairment on the roads will harm people and property. Public policy for marijuana must be informed by both the harm that can be done when a person is impaired and the need to reduce that potential harm.

While there is universal support for both enforcing and reducing marijuana-impaired driving, the science of marijuana impairment is not yet sufficient to advance a testing regime akin to current standards for alcohol field sobriety. NHTSA has recommended well-trained law enforcement officers who can identify signs of impairment but that is not enough.

There are important safety practices that can be implemented to manage the safety of a state's legal marijuana program. As developed for alcohol, safety standards for marijuana and the enforcement of those standards will help keep our roadways safe. We urge the subcommittee and Congress to support the same kinds of standards for marijuana that we see with alcohol impairment on the roads:

- Support the strongest marijuana safety best practices from the states and Canada, some of which currently include:
    a. Mandatory warning labels on marijuana products about driving and working while under the influence of marijuana;
    b. 21 as the minimum age to purchase or consume marijuana; and
    c. Zero tolerance for underage drivers to operate a vehicle with any evidence of marijuana consumption.
- Support strong law enforcement standards for marijuana safety, including law enforcement training.

APCIA neither supports nor opposes marijuana legalization but is concerned with the overall safety and protection of consumers and keeping our roads safe. We appreciate your leadership in holding this important hearing. APCIA is available to answer any questions you may have and to engage further on this topic with the subcommittee, its members, staff, or other stakeholders.



Nathaniel F. Wienecke

FOUNDATION FOR ADVANCING ALCOHOL RESPONSIBILITY

August 23, 2019

The Honorable Frank Pallone, Jr.
Chairman
Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515

Dear Chairman Pallone:

Thank you once again for the opportunity to testify at the July 24, 2019 hearing on Legislation to Make Cars in America Safer and for your longstanding leadership to improve safety on our nation's roadways. I am following up as requested to the questions from The Honorable Michael C. Burgess, M.D. (R-TX):

Question 1. I understand there is technology being developed to accurately detect alcohol-impaired driving through breath- and touch-based systems called the Driver Alcohol Detection System for Safety, or DADSS. Has there been any research on technology that will perform the same assessment of drug-impaired drivers?

Answer: The following information was provided to Responsibility.org from the DADSS Program in order to provide a response to this question: The DADSS Program remains focused on commercializing vehicle–integrated alcohol detection sensors/systems to reduce alcohol–impaired crashes and the associated deaths and injuries. The DADSS technologies use spectroscopy to detect and quantify ethyl alcohol - the intoxicating agent in beverage alcohol. With additional research, DADSS technologies might be adapted to detect, and possibly quantify tetrahydrocannabinol ("THC") - the principal psychoactive constituent of cannabis; opioids; or other substances of interest. Some current DADSS inventions regarding how to package multiple lasers in a small enclosure, power and thermal management of the lasers, etc., likely would transfer to other applications."

Question 2. Often alcohol and drugs are present together when an impaired driver takes to the road. Do you believe there is technology that can be developed to assess the presence of both drugs and alcohol and accurately determine acuity level for operation of a vehicle?

Answer: New tools and technology for law enforcement are on the horizon. Some are in development and others are being piloted in the U.S. and utilized internationally.

Oral fluid testing. This technology tests for the most commonly used categories of drugs (e.g., cannabis (THC), amphetamines, cocaine, methamphetamines, opiates, benzodiazepines, and methadone) and provides a positive or negative reading for each substance. Oral fluid tests are quick and easy to use, minimally invasive, have a short detection window, and provide a sample proximate to the time of driving. Officers can combine BAC test results with oral fluid tests if they suspect that the individual has consumed substances other than alcohol.

Oral fluid devices are useful screening tools, but positive results are not proof of impairment. The tests use cutoff levels to determine presence and they should only be used to assist officers in establishing probable cause - not the sole reason for arrest. Test results combined with officer observations of impairment are necessary to build an impaired driving case. Oral fluid technology has been piloted in numerous jurisdictions across the country and a statewide pilot in Michigan will begin this fall. Australia has used oral fluid testing for more than a decade and Canada authorized the use of oral fluid devices in 2018.

Breath testing technology for drugs. To detect THC as close to the time of driving as possible, researchers and private companies are exploring breath testing technology for drugs: https://ndaa.org/wp-content/uploads/BTL-v25-n2.pdf.

At least two companies have patents for cannabis breathalyzers. One company claims to have a device with dual testing functions meaning that it could detect the presence of cannabis and alcohol. Breath testing for cannabis is also meant to be used in an on-site, screening capacity. The manufacturers claim their devices have short detection windows (2-3 hours). This technology cannot identify individuals who are impaired by cannabis, but it can identify individuals who have the drug present in their bodies (or are under the influence of THC). More research is needed including independent validation studies and pilot programs. Experts believe it will take at least 5 years before these devices can be deployed.

To date, there remains no defined or scientifically valid impairment standard for different drug categories. Until an impairment standard for drugs is established, these devices will only be useful in identifying individuals who have recently ingested drugs. Law enforcement officers will need to identify and document signs and symptoms of impairment which, combined with chemical test results, would form the basis of a drug-impaired driving case.

We urge Congress to continue to support research initiatives that focus on accurate detection of the presence of drugs. If an impairment standard for drugs cannot be developed (and forensic toxicologists believe it may be impossible) law enforcement officers must have tools at their disposal that will aid them in DUI investigations. The combination of specialized law enforcement training to identify signs and symptoms of drug impairment combined with effective detection technology at the time of a traffic stop can be used to establish strong impaired driving cases.

NHTSA should evaluate the viability of oral fluid technology and establish minimum guidelines for device certification. In addition, appropriations should be made to develop and test emerging technologies such as cannabis breathalyzers and transdermal devices.

If we can be of further assistance to you, please do not hesitate to contact Brandy Axdahl, Senior Vice President of Responsibility Initiatives at brandy.axdahl@responsibility.org or 202-277-6233. Thank you for your leadership.

Best regards,

Benjamin Nordstrom, M.D., Ph.D.

Executive Director

Cc: The Honorable Greg Walden
Ranking Member
Committee on Energy and Commerce

The Honorable Jan Schakowsky
Chairwoman
Subcommittee on Consumer Protection and Commerce

The Honorable Cathy McMorris Rodgers
Ranking Member
Subcommittee on Consumer Protection and Commerce

Additional Questions for the Record

Subcommittee on Consumer Protection and Commerce
Legislative Hearing on
"Legislation to Make Cars in America Safer"
July 24, 2019

Ms. Cathy Chase, President, Advocates for Highway and Auto Safety

The Honorable Michael C. Burgess, M.D. (R-TX)

1. Ms. Chase, I agree that we need to find a solution to deaths resulting from automobile emissions. I am concerned that the technology described in H.R. 3145, the PARK IT Act, may not perform as intended. For example, in urban areas individuals may sit in their vehicles in traffic for an extended period of time. However, according to the Centers for Disease Control, it can take as little as 7 minutes for carbon monoxide levels from a vehicle in an enclosed space to reach life threatening levels. We already have carbon monoxide detectors for inside the home or other interior spaces.

    a. **Should the Secretary of Transportation study technology that can be implemented on vehicles to detect rapidly rising levels of carbon monoxide rather than the idle time of a vehicle?** While there is likely a benefit to studying technology that can detect rapidly rising levels of carbon monoxide (CO), the rulemaking requiring an automatic vehicle shutoff must continue to move forward as contemplated under the PARK IT Act (H.R. 3145) to protect families from the associated risks. Research into the potential benefit and feasibility of a sensor-based system may be necessary to ensure that it adequately addresses the safety risk. For example, different conditions, such as home and HVAC designs, could enable situations where a vehicle based detector would not shut off the engine prior to a dangerous buildup of CO which could be drawn into the home, imperiling the occupants.

    The National Highway Traffic Safety Administration's rulemaking process directed under the PARK IT Act will consider a variety of scenarios and means to achieve the intent of the legislation, and public comments will be solicited. Ensuring that the vehicle is not shut off in situations such as stopped traffic or other instances where someone may be purposefully in their idle vehicle for various reasons should be contemplated. The system can be designed to provide for the driver or occupant to be acknowledged (such as a simple pedal tap or steering wheel move) to protect against the vehicle turning off under circumstances which it should not. An automatic shutoff could potentially be paired with a vehicle-based detector, but has merit on its own to

most robustly safeguard against tragic unintended carbon monoxide poisonings at this time.

2. Ms. Chase, several years ago I observed the technology capable of alerting a vehicle operator of an occupant, human or pet, in a rear seat. At that time, the technology simply detected a living being and it was up to vehicle manufacturers to determine the warning haptic. H.R. 3593, the Hot Cars Act, would require the Secretary of Transportation to issue a rule requiring this type of technology on all new passenger vehicles.

   a. **Despite the presence of this technology on a vehicle, will a vehicle-owner or operator have the option of engaging or disengaging the warning haptic?** As directed under the Hot Cars Act (H.R. 3593), it is critical that a vehicle not only detect the presence of an occupant in the rear seat, but also trigger a visual, auditory and haptic alert. Requiring that all three, distinct warnings are combined is the most comprehensive and effective solution to the tragedy of vehicular heatstroke, which claimed a record 53 young lives in 2018 alone. Unfortunately, systems that rely solely on a brief dashboard display or delicate chime may not capture the attention of the driver. Moreover, these will not alert a passerby should a child have gotten into the car on their own, which is the case in 27 percent of all vehicular heatstroke deaths. Ensuring that the alert will utilize a combination of warnings, as under the Hot Cars Act, will best protect children. Whether the system can be engaged or disengaged manually by the owner will be determined during the rulemaking process. Advocates for Highway and Auto Safety would not advise allowing the owner to disengage the system due to the risk posed that it could leave a child vulnerable to vehicular heatstroke. However, if the final rule is written to allow manufacturers to enable the system or any particular warnings to be disengaged, it should be required equipment that is set to "on" as the default each time the vehicle is started.

   b. **If the warning is fixed to engage, do you believe this would deter new vehicle purchases?** Once a system is required as standard equipment, as the Hot Cars Act would require for the detection and alert system, the majority of all new cars will already be equipped with it. This is a critical component because, as demonstrated by experience, no parent thinks that they could unknowingly leave their child in a car. Having all new makes and models come with this vital system will offer this level of protection for all families, rather than requiring that they purchase a higher-end vehicle or expensive luxury package to get the safety benefit. New vehicle purchases are likely to be undeterred because the system would be standard across all options. Once something is made standard equipment, the cost decreases, meaning customers would not be cost-prohibited or have a disincentive to purchase a new vehicle with this feature. For example, since the rearview camera rule took effect last May, new vehicle purchases have not declined and the overall costs of new vehicles have not substantially changed.