2019 NC Traffic Safety Conference & Expo
Achieving Vision Zero
Monday 5 August 2019

9:00am – 6:00pm
Registration Open

1:00pm – 5:00pm
Pre-Conference Workshops

Bike/Ped
Safe Transportation for Every Pedestrian ............................................................... Room 201

In 2016, pedestrians accounted for over 16% of all roadway fatalities, and 72% of pedestrian fatalities occurred at non-intersection locations. In response to increasing pedestrian fatality rates, the Federal Highway Administration initiated the Safe Transportation for Every Pedestrian (STEP) program. This 1/2 day workshop will highlight a new FHWA guide to help agencies select and construct pedestrian safety countermeasures. The guide follows a six step process and includes key tables that show countermeasure options per roadway conditions and safety issues. The workshop will lead participants through interactive group exercises and provide basic information about the STEP countermeasures for pedestrian crossing safety.

Presented by
Lauren Blackburn - Senior Project Manager, VHB
Becky Crowe - Project Manager, FHWA Office of Safety

Criminal Justice/Law Enforcement, Bike/Ped
Enforcement of Pedestrian and Bicyclist Safety* .................................................. Room 302 C

This presentation presents the results of efforts to develop the data profile and analysis methods for a risk-based, systemic pedestrian safety approach. Using eight years of segment data from the entire street network of the City of Seattle, the research team developed Safety Performance Functions for two types of collisions between motor vehicles and pedestrians. These predictive models were used, in conjunction with identified risk factors and countermeasures effectiveness data, to develop a systemic screening tool to identify sets of similar sites that may benefit from similar treatment packages. The end goal of this process is a framework that allows practitioners to identify and prioritize locations within a jurisdiction that are risky for pedestrians and to identify and implement effective, appropriate treatments at many such locations. This can result in a more efficient, cost-effective process, consistency in treatment, and allows targeting more of the network with potential for serious crashes to occur, which can complement high-crash hotspot or high-cost corridor retrofit treatment approaches. As land uses and other conditions changes, these methods can also help agencies anticipate where improvements may be needed.

*Note that this session starts at 10:00am and lasts until 6:00pm.

Presented by
Sarah O’Brien - Senior Research Associate, UNC Highway Safety Research Center
Brian Massengill - Sergeant, Durham Police Department
Impaired Driving, Criminal Justice/Law Enforcement

**SFST Refresher** ........................................................................................................... Room 303

This is a refresher course for those who have already completed a DWI Detection and SFST class (proof is required). Participants will learn about new issues of importance in addition to thoroughly reviewing the standardized battery of tests and related topics. In order to successfully complete the course, participants must pass a written test and prove proficient when administering field tests. Magistrates are told about the results of SFSTs, but do you understand the mechanics? All magistrates will be given the opportunity to audit and SFST refresher course, to better understand the proper administration of these tests and how to interpret the results.

Presented by
Eric Sweden - Lieutenant, Raleigh Police Department

---

Criminal Justice/Law Enforcement

**Large Truck and Bus Enforcement Training** .......................................................... Room 305 A & B

To address the reluctance of law enforcement officer to conduct large truck or motor coach stops, the Federal Motor Carrier Safety Administration has created the Large Truck and Bus Traffic Enforcement Training program. This course is designed to enhance officers’ knowledge about the dangers of unsafe driving by large trucks and buses. Topics include methods to:

- Provide for safe, effective commercial vehicle traffic stops
- Help get dangerous commercial drivers off the road
- Help detect and deter other serious crimes
- Reduce serious traffic violations
- Prevent hazardous cargo spills and crash-related traffic congestion that endanger your community and divert law enforcement from critical responsibilities

Presented by
Brian Strickland - Sergeant, Kitty Hawk Police Department

---

Vision Zero

**Vision Zero Systems Tools** .......................................................................................... Room 306

In this workshop, we will build skills in using systems tools to help unpack our most persistent road safety problems and discuss paths forward within a Vision Zero framework. We will examine how systems tools can foster new collaborations, partnerships, and problem-solving approaches and how they can inform strategic action. We will also provide strategies for integrating systems approaches into current transportation safety research and practice in ways that can complement and enhance current practices.

Presented by
Jill Kuhlberg - Postdoctoral Research Associate, UNC Gillings School of Global Public Health
Becky Naumann - Assistant Research Professor, UNC Gillings School of Global Public Health
Tuesday 6 August 2019

7:00am – 5:00pm
Registration Open

7:00am – 8:00am
Breakfast and Networking

8:00am – 9:00am
Opening Plenary Session

9:00am – 6:30pm
Exhibit Hall Open

9:15am – 10:15am
Breakout Session One

**Bike/Ped, Engineering/Planning**

**Improving Pedestrian Crossing**

This session will explain how safe pedestrian crossings are an essential part of the transportation network. This workshop is part of the FHWA Safe Transportation for Every Pedestrian (STEP) program. The workshop will include group activities and present methods for analyzing pedestrian safety data, planning for safety improvements, and selecting countermeasures to reduce pedestrian crashes and deaths. STEP promotes the use of seven proven countermeasures that agencies can deploy: Pedestrian Hybrid Beacons (PHBs), Rectangular Rapid Flash Beacons (RRFBs), Road Diets, pedestrian refuge islands, raised crosswalks, crosswalk visibility enhancements, and Leading Pedestrian Interval (LPI).

**Presented by**
Lauren Blackburn - Senior Project Manager, VHB

**Impaired Driving**

**Drugs on the Body, Body on the Drugs**

How do drugs effect the body of the user, and what does the body do to rid itself of those drugs?

**Presented by**
Joey Jones - Toxicologist, Pinpoint Testing
Kenny Benfield - DRE State Coordinator, North Carolina Department of Health and Human Services
Other Traffic Safety Priorities

Strategies to End Distracted Driving

Distracted driving was called an “epidemic” in 2009. Yet, distracted driving still kills about 3,200 people and injuring almost 400,000 each year. Isn’t it time to change strategies?

Presented by
Joel Feldman - Traffic Safety Advocate, EndDD.org

Impaired Driving

The Role of Technology in Monitoring the Impaired-Driving Offender

This presentation will review several program evaluations and research publications to include how programs have evolved to effectively reduce recidivism through use of technology. This presentation will demonstrate the current state of impaired driving in the U.S. as well as the shift in public opinion regarding the use of these devices to change the behavior of the impaired driving population. Current studies have shown that the proper use of technology results in behavior change, specifically reductions in recidivism. Public opinion and self reported surveys show that although respondents feel that impaired driving is dangerous and an important public safety issue, those who reported driving when impaired has increased significantly, providing evidence that public education regarding this matter is lacking. Attendees will be able to identify the appropriate use of technology to monitor the impaired driving population and why research outcomes may vary dependent the study design.

Presented by
Tara Casanova Powell - Principal, Casanova Powell Consulting

Criminal Justice/Law Enforcement

The Medically-at-Risk Driver: Guidelines for Law Enforcement

This session will define and describe the medically-at-risk driver. With the population aging, one in four drivers will be over 65 years of age by 2030. While most are good drivers, many aging adults have one or more chronic conditions that impact their fitness to drive. This is especially true with older adults diagnosed with dementia. This session will highlight what the law enforcement officer may observe when stopping an individual who is medically at risk. In addition, the discussion will focus on the current Medical Review strategies and means of implementing new protocol to address the at risk driver.

Presented by
Cheryl Leonard - Assistant Director, North Carolina Governor’s Highway Safety Program
Anne Dickerson - Professor, Department of Occupational Therapy, East Carolina University

Vision Zero

The Goal of Zero Traffic Deaths: What It Will Take to Achieve Our Statewide Vision

As a Vision Zero state, North Carolina has adopted a long-term goal of zero traffic fatalities. In this session, we will discuss ongoing Vision Zero efforts in North Carolina communities like Charlotte, Durham, and Greensboro while also reflecting on what tools and efforts are still needed. We will then turn our attention to the promising roadway safety principle Safe Systems. Safe Systems has been effectively adopted by countries like the Netherlands and Sweden to drastically reduce
roadway fatalities, and Safe Systems policies have great potential for making safety gains in the United States. However, these policies and principles will likely require careful contextualization to be applicable to the unique roadway system we have here in North Carolina, so we will end this session with key next steps.

Presented by
Wesley Kumfer - Engineering Research Associate, UNC Highway Safety Research Center
Tracy Anderson - NC Vision Zero Coordinator, NCSU Institute for Transportation Research and Education

Criminal Justice/Law Enforcement
Event Data Recorders ................................................................. Rm. 305 A & B

Learn what sorts of traffic safety-relevant data event data recorders collect and when you can use that data to help you do your job more effectively.

Presented by
Anthony Barnes - Trooper, North Carolina State Highway Patrol
Alex Justice - Sergeant, North Carolina State Highway Patrol

Child Passenger Safety
Manufacturer Update (Part 1) .................................................. Rm. 306 A, B, & C

This session will familiarize technicians with new child restraints and technologies introduced to the market in the last 12 months.

10:30am - 11:30am
Breakout Session Two

Criminal Justice/Law Enforcement
Commercial Driver’s License: What’s the Difference? ..................... Rm. 201

Get a detailed explanation of the laws relating to CDLs in North Carolina, including how having a DWI on one’s record can upset one’s ability to obtain and retain a CDL and the affects of masking.

Presented by
Romana Lavalas - Senior Attorney, National Traffic Law Center
Jo Anne Thomka - Director, National Traffic Law Center

Impaired Driving
Drugs on the Body, Body on the Drugs .................................... Rm. 301 A & B

How do drugs effect the body of the user, and what does the body do to rid itself of those drugs?

Presented by
Joey Jones - Toxicologist, Pinpoint Testing
Kenny Benfield - DRE State Coordinator, North Carolina Department of Health and Human Services
Other Traffic Safety Priorities

Strategies to End Distracted Driving ......................................................... Rm. 302 A & B

Distracted driving was called an “epidemic” in 2009. Yet, distracted driving still kills about 3,200 people and injuring almost 400,000 each year. Isn’t it time to change strategies?

Presented by
Joel Feldman - Traffic Safety Advocate, EndDD.org

Vision Zero

A Collaborative Vision: Partnerships and Vision Zero Durham ........................................ Rm. 302 C

In September of 2017, the City of Durham became the first city in North Carolina to launch a Vision Zero program. This panel offers an opportunity for participants to learn about the interdisciplinary partnerships that have been established in Durham to address roadway safety, and the projects that have developed out of these collaborations. Participants will learn about the origins of Durham’s Vision Zero initiative and how it has led to collaborative outreach events, data linkage discussions, and Durham’s participation in Smart Growth America’s Safe Streets, Smart Cities Academy. Attendees will learn how to foster meaningful, collaborative partnerships, and how partnerships can have positive unintended outcomes for all involved. This moderated panel will consist of partners from the City of Durham Transportation Department, Duke Trauma Center, and the Carolina Center for Health Informatics.

Presented by
Anne Phillips - Transportation Specialist, City of Durham
Tricia Smar - Injury Prevention Coordinator, Duke University Health System
Antony Wambui - Transportation Planner, City of Durham
Anna Waller - Director, Carolina Center for Health Informatics

Engineering/Planning

How Is California Supporting Proactive Traffic Safety Planning for Local Jurisdictions? ......................................................... Rm. 303

California has allocated grant funding as part of its Highway Safety Improvement Program to assist jurisdictions in the development of a Systematic Safety Analysis Report (SSAR). These studies are intended to give cities and counties the opportunity to review the characteristics of their roadways and intersections alongside crash records to identify factors that contribute most to local traffic injuries and fatalities. A variety of locations with higher crash activity and assorted characteristics are selected for development of cost-effective safety mitigations. This leads to a solution toolbox that they can use to proactively rectify intersection and roadway characteristics that are associated with elevated crash activity. This presentation will outline the SSAR process and provide examples of the network screening and site selection methods, and how crash modification factors are used to conduct a benefit-cost analysis to support project development and prioritization.

Presented by
Darryl dePencier - Senior Transportation Planner, Kimley-Horn
Derrick Waller - Civil Engineer, Kimley-Horn
Impaired Driving
The DRE Matrix: Signs and Symptoms

Explanation of signs and symptoms for non-DRE using a case file and the matrix.

Presented by
Joe Byrd - Trooper, North Carolina State Highway Patrol
Andy Reed - Officer, Greensboro Police Department

Child Passenger Safety
Manufacturer Update (Part 2)

This session will familiarize technicians with new child restraints and technologies introduced to the market in the last 12 months.

Traffic Safety Awards Lunch
Meet the Exhibitors
Breakout Session Three

Other Traffic Safety Priorities
Turning Tragedy Into Advocacy:
Two Moms on a Mission to Make Truck Crashes More Survivable

Two moms are on a mission to make truck crashes more survivable. Both lost daughters in truck underride crashes -- one at the side of a trailer in 2004, the other at the rear of a trailer in 2013. They learned that hundreds of people die this way every year and that, even though engineers have developed solutions, effective underride protection is not required or installed on millions of trucks nationwide. They have shed the light on this century-old hidden problem and drafted legislation which has been introduced in Congress. They will share their journey, advocacy strategies, goals for improving underride data collection, and the promise the STOP Underrides! Act holds for protecting all road users in every city and state across America.

Presented by
Marianne Karth - Traffic Safety Advocate
Lois Durso - Traffic Safety Advocate
Sovereign Citizens are usually a group of loosely associated anti-government extremists who believe that law enforcement has no authority over them. When law enforcement encounters a Sovereign, they will frequently attempt to confuse and delay the officer. Some Sovereign encounters with law enforcement have even turned deadly. This presentation will provide the tools to recognize a Sovereign Citizen, survive the encounter, and pass on the information to make the law enforcement community safer.

Presented by
Ben Byrne - President, Astute Synthesis

Retrograde Extrapolation and Hospital Blood Conversion Ratios

How an expert can convert results into admissible evidence.

Presented by
Paul Glover - Branch Head, Forensic Tests for Alcohol Branch, North Carolina Department of Health and Human Services

Effective and Proactive Methods to Preventing Pedestrian and Bicycle Crashes

In this session, researchers from UNC Highway Safety Research Center will further explore how crash type patterns and other risk factor information can help agencies be more proactive in preventing pedestrian- and bicycle-involved crashes with motor vehicles. Many locations are at risk of crashes, especially more severe ones, even if they lack a crash history. It is now understood that most crashes are not random events, but are fairly predictable occurrences, based on the presence of combinations of risk factors including roadway elements, travel patterns, land uses, and behaviors. We will delve into characteristic patterns of pedestrian and bicyclist injury crashes in North Carolina, and then explore effective, lower-cost countermeasures and operational changes agencies can make at similar risky locations across their networks to help prevent crashes before they occur.

Presented by
Libby Thomas - Senior Research Associate, UNC Highway Safety Research Center
Dan Gelinne - Research Associate, UNC Highway Safety Research Center

Hurricanes of Traffic Engineering

Major post Florence traffic control approaches and applications to address post disaster infrastructure damages.

Presented by
Donald Bennett - City Traffic Engineer, City of Wilmington
Eric Lippert - Officer, Wilmington Police Department
Vision Zero
Charlotte’s Collaboration to Achieve Vision Zero

Charlotte began work on a Vision Zero Action Plan in 2018 following a record year of traffic fatalities in the City. The Vision Zero Task Force was convened to enhance safety and eliminate traffic-related deaths and severe injuries in the Queen City. The Task Force includes representatives from government and law enforcement agencies, hospitals, interest groups and engaged citizens who work together to create safe streets. To achieve Vision Zero by 2030 the group of more than 50 partners formed committees to collaborate on strategies for community engagement, data analysis and equity. The Task Force participated in more than 25 community events all over Charlotte and engaged in over 1,000 conversations about traffic safety. The Task Force committees worked together to meet people in the community and engage with individuals digitally through an interactive map. The Task Force used data collected in conjunction with an in-depth analysis of crash data to develop the Action Plan.

Presented by
Angela Berry - Traffic Safety, ITS, & Special Projects Manager, Charlotte Department of Transportation
Alex Riemondy - Transportation Planner, Charlotte Department of Transportation

Impaired Driving
Colorado Cannabis: Intoxication and Psychosis?

We will explore the impairing forms of THC and how they move in the body for background. Then, we will evaluate how to respond to defense claims (including Shrek motions) involving signs and symptoms of marijuana impairment. Attend to learn more about the research in this area and where to get more information.

Presented by

Child Passenger Safety
Hands-On Challenge

In this session Technicians will complete hands-on exercises using common Technician tools including the LATCH manual, car seat user guides, and the UNC Highway Safety Research Center (HSRC) Recall List. In order to earn a CEU for this session, Technicians must complete the LATCH manual, Recall List, and Lock off Challenges and 2 of 4 car seat manual challenges and complete the signature form.

• LATCH Manual Challenge: Participants will use the LATCH manual to answer questions commonly encountered in the field.
• Recall List Challenge: Participants will practice using the HSRC Recall List to determine if a car seat is recalled.
• Working the Lock Off: Intimidated by lock-offs? Participants will get hands-on practice with a variety of different lock-offs to make sure they are using this helpful feature correctly.
• Car Seat Manual Challenge: Participants will get hands-on experience with new and/or common seats with unique features. Participants will complete a hands-on activity with each seat.
This session will examine how child restraints and vehicle restraint systems work to protect passengers in a motor vehicle crash and will discuss why correct usage is critical for occupant protection. Participants will also learn how to examine child passenger restraint systems to determine if the restraint system was used correctly or incorrectly during the crash. Finally the session will conclude with a review of the N.C. Division of Motor Vehicles 349 crash report form with a focus on why it is critical to document all aspects of child passenger restraint utilization to accurately reflect the crash investigation. This will be an interactive session reviewing case studies of crash investigations.

Points covered will be:

- How child restraints respond in crashes using case studies and real-world examples that go beyond what is covered in the curriculum,
- How to identify misuse of child restraints and belt systems after a crash to determine how the child was injured or killed. Case studies and real-world examples will be used to illustrate key points and as a tool for discussion.
- The importance of documentation to ensure complete and accurate data reporting.

Presented by
Debroah Leonard - Safety Engineer, North Carolina Department of Transportation
Eric Schaberg - Sergeant, North Carolina State Highway Patrol

3:45pm – 4:45pm
Breakout Session Four

Criminal Justice/Law Enforcement
Drag Factors and Coefficients of Friction: Making It Simple ......................................................... Rm. 201

The nature of the roadway has an effect on the nature of the crash. Explanation of how this information is compiled and what it means.

Presented by
Eric Schaberg - Sergeant, North Carolina State Highway Patrol

Criminal Justice/Law Enforcement
Sovereign Citizens ......................................................................................................................... Rm. 301 A & B

Sovereign Citizens are usually a group of loosely associated anti-government extremists who believe that law enforcement has no authority over them. When law enforcement encounters a Sovereign, they will frequently attempt to confuse and delay the officer. Some Sovereign encounters with law enforcement have even turned deadly. This presentation will provide the tools to recognize a Sovereign Citizen, survive the encounter, and pass on the information to make the law enforcement community safer.

Presented by
Ben Byrne - President, Astute Synthesis
Other Traffic Safety Priorities
Emerging Technologies for Micro-Mobility:
What Do We Know, What Do We Not Know, and What Do We Do? Rm. 302 A & B

Since 2017, a proliferation of start-ups distributed electric kick-scooters for use in shared mobility systems across the U.S., generating millions of trips per year. In NC, these systems have been established in Charlotte and Raleigh and are being introduced in more cities. While potential health, environmental, and congestion relief benefits are promising, safety and planning concerns abound. In this session, we will explore what we know and don’t know about these emerging technologies, showcase local perspectives, and discuss how cities can improve planning and designing for emerging forms of low speed travel via light electric vehicles (such as e-scooters) and coordinate with industry partners. We will share findings from a scan of agency practices and feature speakers from an NC work group focusing on e-scooter injury surveillance. We will also discuss the extent to which national and state-specific infrastructure design guidance accommodates emerging light vehicle travel modes.

Presented by
Laura Sandt - Associate Director, UNC Highway Safety Research Center
Alyson West - Junior Research Associate, UNC Highway Safety Research Center

Engineering/Planning
Incident Management* Rm. 302 C

TBD

*Note that this session lasts until 5:15pm.

Presented by
TBD

Child Passenger Safety
Beyond Booster Seats: Occupant Protection in the Teen Years Rm. 303

As CPS Technicians we spend a lot of time focusing on kids from birth through boosters. But how do we help families keep their kids safe through the teen years? Selecting an appropriate car for your teen to drive is just as important as selecting an appropriate car seat! In this session attendees will learn what occupant protection features to look for when choosing a vehicle for a teen driver. We will also discuss the future of vehicle safety including different technologies designed to increase occupant safety (e.g. rear seatbelt reminders, new airbag systems) or even potentially prevent crashes before they occur such as collision avoidance systems.

Presented by
Stephanie Harrell - Social/Clinical Research Assistant, UNC Highway Safety Research Center
Impaired Driving

**Common Defenses and Why They Are Wrong**.......................................................... Rm. 304

Defenses routinely seen and how to combat them with good investigations and courtroom techniques.

Presented by
Rachel Smith - Traffic Safety Resource Prosecutor, State of Louisiana
Mattison Gamble - Traffic Safety Resource Prosecutor, State of South Carolina

Other Traffic Safety Priorities

**Autonomous Vehicle Q & A**..................................................................................... Rm. 305 A & B

Autonomous vehicles are predicted to improve safety, reduce congestion and emissions, and create new mobility options for people with disabilities, but how do they work? This lecture, designed for an audience with questions about autonomous vehicles, will review the technology required to turn drivers into passengers and go over some of the challenges that still need to be overcome before we can summon one ourselves. Lecture content will include overviews of sensor and navigation technology, common terminology, test methods, and current regulations. The session will include 20 minutes of Q&A with the audience.

Presented by
Michael Clamann - Senior Human Factors Engineer, UNC Highway Safety Research Center

**Child Passenger Safety**

**Hands-On Challenge**.................................................................................. Rm. 306

In this session Technicians will complete hands-on exercises using common Technician tools including the LATCH manual, car seat user guides, and the UNC Highway Safety Research Center (HSRC) Recall List. In order to earn a CEU for this session, Technicians must complete the LATCH manual, Recall List, and Lock off Challenges and 2 of 4 car seat manual challenges and complete the signature form.

- **LATCH Manual Challenge:** Participants will use the LATCH manual to answer questions commonly encountered in the field.
- **Recall List Challenge:** Participants will practice using the HSRC Recall List to determine if a car seat is recalled.
- **Working the Lock Off:** Intimidated by lock-offs? Participants will get hands-on practice with a variety of different lock-offs to make sure they are using this helpful feature correctly.
- **Car Seat Manual Challenge:** Participants will get hands-on experience with new and/or common seats with unique features. Participants will complete a hands-on activity with each seat.
In 2017, nearly 40,000 people died in traffic crashes in the United States. Nearly 1,400 of these deaths occurred on North Carolina’s roads. Professionals working in the transportation safety field have made significant strides in promoting seat belt use and protecting motor vehicle occupants. Nonetheless, the traffic injury problem has shifted toward those road users traveling outside of vehicles. Recent trends in traffic safety and in technology and demographics suggest that single interventions are insufficient to effectively improve road user safety. Needed are novel strategies to examine safety problems in different ways, use innovative techniques and tools, and engage non-traditional partners. In this session, three researchers with the University of North Carolina Highway Safety Research Center will illustrate their development of a “Safe Systems Framework.” This tool is designed to guide traffic safety professionals in engineering, law enforcement, planning, and public health in developing lasting partnerships, to direct users to the latest advances in research and evidence-based safety practice, and to select the most appropriate suite of countermeasures to tackle enduring, system-wide traffic safety issues. Join the team for an interactive session to explore systems science approaches and their application to your work in road safety.

Presented by
Seth LaJeunesse - Research Associate, UNC Highway Safety Research Center
Stephen Heiny - Research Associate, UNC Highway Safety Research Center
Sarah Brown - Research Assistant, UNC Highway Safety Research Center

5:00pm – 6:30pm
Reception with Exhibitors

Wednesday 7 August 2019

7:00am – 5:00pm
Registration Open

7:00am – 8:00am
Coffee and Networking

8:00am – 9:00am
Second Plenary Session
**Other Traffic Safety Priorities**

**We’re Number One, But Don’t Want to Be!**

**Pirates Shift Sails to Combat High Crash Rates** .......................................................... **Rm. 201**

The City of Greenville Traffic Safety Task Force was developed in 2018 as a multidisciplinary approach to reduce the number of crashes in Greenville. Pitt County has ranked number one in the state (of cities in comparable size) for several years. The Greenville Police Department has taken an active approach to work with community partners to address this critical need for crash reduction. There are 5 agencies working together to change the culture of driving in the city.

Presented by
Ellen Walston - Injury Prevention Program Coordinator, Eastern Carolina Injury Prevention Program at Vidant Medical Center
Michael Montayne - Lieutenant, Greenville Police Department

**Impaired Driving**

**How to Investigate and Prosecute Marijuana Impaired Driving** ............................................. **Rm. 301 A & B**

How to investigate and prosecute marijuana impaired driving.

Presented by
Robert Hayes - Sergeant, Albany Police Department

**Impaired Driving**

**Investigating Drug-Impaired Drivers:**

**How Non-DRE Officers Can Still Make a Good Case** .......................................................... **Rm. 302 A & B**

How non-DRE officers can still make a good drug-impaired driving case for court.

Presented by
Kimberly Overton - Chief Resource Prosecutor, North Carolina Conference of District Attorneys
Brandon Craft - Lieutenant, North Carolina State Highway Patrol
Bike/Ped

Results from the Crash Based Evaluation of the Watch for Me NC Program ........................................Rm. 302 C

This presentation describes the efforts to estimate the crash-based safety effectiveness of the Watch for Me (WFM) NC program. WFM NC program was launched in 2012 and over the course of six years (2012 – 2017), a total of 41 communities from 29 counties have participated in the program. The objective of this study was to estimate the safety effectiveness of the WFM NC program as measured by changes in pedestrian and/or bicyclist crash frequency. Empirical Bayes (EB) before-after study was used for this evaluation. The results show a positive effect of the WFM NC program on reducing county-wide pedestrian crashes. The total pedestrian crashes show a statistically significant reduction of 12.8% along with a 21.7% reduction in nighttime crashes and a 9.5% reduction in failed to yield crashes, both statistically significant. The study cannot conclude whether the WFM NC program has had a positive or negative impact on bicycle crashes due to the lack of quality bicycle exposure measures.

Presented by
Taha Saleem - Research Associate, UNC Highway Safety Research Center
Sarah O’Brien - Senior Research Associate, UNC Highway Safety Research Center

Impaired Driving

Oral Fluid Testing: What’s the Status? ..............................................................................................................Rm. 303

Overview of roadside oral fluid studies from other states and their effectiveness.

Presented by
Bill Lindsey - Traffic Safety Resource Prosecutor, State of Alabama

Criminal Justice/Law Enforcement

Everyone Knows the Cameras Are Rolling ....................................................................................................Rm. 304

Learn how to use dash and body cameras effectively.

Presented by
Brian Strickland - Sergeant, Kitty Hawk Police Department

Child Passenger Safety

Beyond the Sled Test: Product Integrity Testing of Child Restraints .........................................................Rm. 305 A & B

Car seat technicians are generally familiar with the extensive crash testing that takes place prior to the production of a child restraint, however techs may not be aware of the role that product integrity testing plays in this process. This presentation will discuss the various other types of testing that occur before child restraints hit store shelves. The discussion will also include a look at the standards that govern this testing, including federal motor vehicle safety standards, ASTM and CPSC.

Presented by
Sarah Haverstick - Safety Advocate, Goodbaby International
Other Traffic Safety Priorities

Time to Drive: A New Program to Help Parents of Teenage Drivers in North Carolina

Rm. 306 A, B, & C

Parents play a crucial role in helping teens become safe drivers, but they are given very little guidance on how to accomplish this. In this session, participants will hear about a new program currently being tested in North Carolina that is designed to help parents during this critical phase in a young person’s life. Attendees will get to experience parts of the program as if they were a parent of a new teen driver. Attendees will also learn about some of the principles underlying the program that can be applied to any teen driver safety program. Attending the human behavior 101 session prior to this session is recommended, but not required.

Presented by
Arthur Goodwin - Senior Research Associate, UNC Highway Safety Research Center
Kristel Robison - Research Associate, UNC Highway Safety Research Center

Child Passenger Safety, Criminal Justice/Law Enforcement

Crash Course in Car Seats for Law Enforcement

Rm. 402

This workshop presents a Law Enforcement Officer a guide to enforcing Child Passenger Safety laws. What is the law? What should you look for on traffic stops and license checks? Where can you find information on local Car Seat Checking Stations? Find out with this crash course on the laws, best practices, and proper installation.

Presented by
Jarod Ewers - Sergeant, Gastonia Police Department

10:30am - 11:30am

Breakout Session Six

Criminal Justice/Law Enforcement

Commercial Vehicle Crashes: What Do You Do?

Rm. 201

This session answers: What documents should you collect? When do you need to call in a specialist?

Presented by
Anthony Barnes - Sergeant, North Carolina State Highway Patrol

Impaired Driving

How to Investigate and Prosecute Marijuana Impaired Driving

Rm. 301 A & B

How to investigate and prosecute marijuana impaired driving

Presented by
Robert Hayes - Sergeant, Albany Police Department
Impaired Driving

DWI Child Endangerment: An Unacknowledged Emergency .............................................. Rm. 302 A & B

Part one: the scope of the problem, including self-reported data from students, the ongoing WNC Child Passenger Safety from Impaired Driving Initiative, and its impact.

Part two: Charges, Prosecution, Conviction and Sentencing.

Presented by
Ellen Pitt - Crime Victim Advocate/Court Monitor, MADD North Carolina
Douglas Edwards - Assistant District Attorney, Buncombe County District Attorney’s Office

Child Passenger Safety

FMVS WHAT? Understanding Federal Regulations ......................................................... Rm. 302 C

In this session CPS Technicians will review the federal regulations that govern occupant protection to understand where they come from and how they improve safety for all occupants.

Presented by
Bill Hall - Senior Research Associate (Retired), UNC Highway Safety Research Center

Child Passenger Safety

Not Your Average Vehicle .................................................................................................... Rm. 303

We will be exploring what a golf carts, Low Speed Vehicles, UTV and ATV are. How are they different for adults and children and what safety features are required. What falls under FMVSS? How do we make the best decisions on how to transport children safely. (1CEU)

Presented by
Jackie Quinley - Police Officer/Child Passenger Safety Instructor, Gastonia Police Department

Criminal Justice/Law Enforcement

Vehicle Searches ................................................................................................................ Rm. 304

Limitations and laws relating to vehicle searches.

Presented by

Criminal Justice/Law Enforcement

The Road Tells the Story ................................................................................................. Rm. 305 A & B

Interpreting skids, gouges, etc. in crash scenes.

Presented by
Eric Sweden - Lieutenant, Raleigh Police Department
Vanessa Smith - Corporal, Jacksonville Police Department
Other Traffic Safety Priorities

Human Behavior 101 or Human Behavior and Road Safety .......................................................... Rm. 306

Why do people do what they do? In road safety, the term human factors is typically used to describe how people respond to the roadway environment. However, this term conveys an oversimplified notion of the role of human behavior in transportation safety. Humans are more complex than simply a list of discrete factors. Understanding human behavior is key for any successful transportation safety initiative. In this session participants will learn key principles of human behavior and how to apply that knowledge to solve transportation safety problems.

Presented by
Bevan Kirley - Senior Research Associate, UNC Highway Safety Research Center

Other Traffic Safety Priorities


North Carolina is the only state awarded by NHTSA to demonstrate how to best implement Highway Guideline #13: Older Driver Safety. The project has progressed on at least four fronts: communication, law enforcement, medical review, and aging services. This session will describe the strategies that have been implemented and the outcomes from evaluation of the results. Of particular concern will be improvement in addressing the medically-at-risk driver, those whose medical condition(s) likely affect driving. In addition, to describing what has worked, the session will be an opportunity to explore additional avenues to improve older driver safety with feedback and discussion from the audience.

Presented by
Anne Dickerson - Professor, Department of Occupational Therapy, East Carolina University
Cheryl Leonard - Assistant Director, North Carolina Governor’s Highway Safety Program

11:30am – 1:45pm
Lunch with Exhibitors

1:45pm – 2:45pm
Breakout Session Seven

Other Traffic Safety Priorities

The Economics of Motorcycle Helmet Use .......................................................... Rm. 201

North Carolina’s Universal Motorcycle Helmet Law is rated number one in the country for saving lives and health care costs. Based on the experience in other states, weakening the state’s universal helmet law will result in increased injuries and associated health care costs. The presentation will present data from recent studies quantifying health care costs in North Carolina under the current universal motorcycle helmet law and project cost increases by comparing with states in the region that have weakened their helmet laws.

Presented by
Alan Dellapenna - Brand Head, Injury and Violence Prevention Branch, North Carolina Division of Public Health
Other Traffic Safety Priorities

Emerging Trends in Transportation Safety and the Need for Systemic Resilience

Transportation in the United States is in a turbulent state of evolution. As our population ages and the demographics of drivers changes, policy makers and safety professionals grapple with an opioid epidemic and shifting rates of impairment. Against this canvas new forms of transportation, like E-scooters, are appearing on streets while vehicles become more automated and drivers more cognitively taxed. Traffic safety has truly become a systemic issue, but many agencies remain unsure what crash reduction goals to target or what tools are available to even address these issues. In light of all these dramatic changes, we present findings from a seminar series on Systems Resilience and discuss the importance of human factors and systems design for preparing North Carolina’s transportation system for these trends and whatever the future may hold.

Presented by
Wesley Kumfer - Engineering Research Associate, UNC Highway Safety Research Center
Tabitha Combs - Research Associate, UNC Department of City and Regional Planning
Seth LaJeunesse - Research Associate, UNC Highway Safety Research Center
Michael Clamann - Senior Human Factors Engineer, UNC Highway Safety Research Center

Criminal Justice/Law Enforcement
Hear Me Now...

Part I: Improving testimony and communication skills.

Presented by
Kimberly Overton - Chief Resource Prosecutor, North Carolina Conference of District Attorneys

Bike/Ped
Systemic, Risk-Based Pedestrian Safety and Project Prioritization Process

Although pedestrian fatalities and injuries decreased for decades at a rate similar to vehicular occupant fatalities in the United States, recent years have seen substantial increases in the pedestrian fatality counts and rate. Locations of risk for pedestrians may be overlooked or untreated because important, network-level data types are not collected or analyzed, and high injury pedestrian crashes are often relatively infrequent at specific locations. There is a need for safety processes and metrics that help overcome the limitations of crash histories for project prioritization in order to target more locations at risk of severe injuries with effective countermeasures, regardless of whether they have a recent history of crashes.

Presented by
Libby Thomas - Senior Research Associate, UNC Highway Safety Research Center

Impaired Driving
Phleboto-Cops

Overview of officers drawing blood.

Presented by
Jared Olson - Traffic Safety Resource Prosecutor, State of Idaho
Impaired Driving

Impaired Driving Case Law Update

Updates on recent important cases.

Presented by
Ike Avery - Highway Safety Czar, North Carolina Conference of District Attorneys

Child Passenger Safety

LATCH: Do You Really Need the Manual?

Do you really need a LATCH manual? This common question will be answered in an interactive session allowing students to learn ways to use their latch manual and why it is such a valuable resource. The overview of this manual will allow students to pinpoint sections of the book for quick reference when in the field and make students more confident when cracking it open. LATCH can even be fun with a little competition. So, who can learn from their latch manual and put it into practice?

Presented by
Meg Langston - Traffic Safety Advocate

Criminal Justice/Law Enforcement

Drugs and Driving Don’t Mix: Catching Criminals on the Highway

The presentation will educate officers on indicators of narcotic possession, narcotic use and impairment, and narcotic trafficking, while conducting traffic law enforcement. Officers will gain another tool in combating the narcotics being used and transported on our highways to better protect the innocent motoring public.

Presented by
Daniel Clark - Sergeant, Bladen County Sheriff’s Office

3:00pm – 4:00pm

Breakout Session Eight

Bicyclist Safety: Improving Messaging for Motorists

Dispelling motorist’s misconceptions about automobile/bicycle interactions requires a shift from ambiguous and counter-productive public messaging to effective, actionable instructions. Improved messages and their basis in the common causes and contributing factors of motor vehicle-bike crashes are presented. Changes in state laws, driver education, and signage related to passing, bicyclist roadway position, and safe speed are discussed.

Presented by
Steven Goodridge - Board Member, BikeWalk NC
Impaired Driving

The Seated Battery: Another Tool

The Standardized Field Sobriety Tests (SFSTs) commonly used for roadside testing don’t always work in a marine environment. Because of this, the Seated Battery was developed. This class will explain the seated tests, how they work, and how to apply them not only on boats but roadside as well.

Presented by
Tod Radabaugh - Captain (Retired), North Carolina Wildlife Resources Commission

Criminal Justice/Law Enforcement

...And Remember What I Said

Part II: Improving testimony and communication skills.

Presented by
Kimberly Overton - Chief Resource Prosecutor, North Carolina Conference of District Attorneys

Vision Zero

City of Greensboro’s Vision Zero Plan

City of Greensboro will provide background on determining the need for a Vision Zero plan, and their decision to hire an outside consultant to facilitate the process. VHB will discuss the importance of a data-driven process and provide an overview of the data collection and analyses process as well as the challenges and solutions the team experienced. The team will introduce how the project team used the data to narrow the focus to the three Emphasis Areas. The City of Greensboro and VHB will discuss the importance of stakeholder engagement through plan development. VHB will review engagement with the 4Es (engineering, enforcement, education/encouragement, emergency services) to develop the plan’s goals, objectives, and strategies. Greensboro will discuss community engagement and how public input was integrated into the final plan. VHB will review how to use data-driven goal, target and performance measure the success of the plan in 2- and 10-year interviews over the project.

Presented by
Joshua Defisher - Safety Analyst, VHB
Kara Peach - Transportation Planner, VHB
Adam Fischer - Director of Transportation, City of Greensboro
Lydia McIntyre - Transportation Planning Engineer, Greensboro Metropolitan Planning Organization

Criminal Justice/Law Enforcement

Train Crash Scenes and Evidence Collection

A collisions involving a train and an automobiles is a whole other animal than a collision involving an automobile and an automobile. In this session, you will learn what to do and how.

Presented by
Roger Smock - Rail Safety Consultant, North Carolina Department of Transportation
Ike Avery - Highway Safety Czar, North Carolina Conference of District Attorneys
An explanation of basic occupant protection systems in the vehicle, their purpose and how they function. (e.g. crush zone, roof strength, side impact, airbags, seatbelt systems, vehicle seat, head restraint, etc.)

Presented by
Vera Fullaway - Product Development and Improvement Consultant, Customer & Advocate Relations Manager, Safe Traffic System, Inc.

Other Traffic Safety Priorities, Criminal Justice/Law Enforcement

Workshop: Modernizing Crash Investigation with Vehicle Automation

The future safety benefits of automated vehicles will be a result, in part, of the vast amount of data required to support roadway sensing and navigation. Unfortunately, due to the unpredictable nature of the highway environment, severe crashes will continue to occur. While better data can’t prevent all future crashes, it could be used to augment accident reconstruction and investigation. In this workshop, we invite traffic safety professionals and law enforcement officers to join us in a conversation about modernizing accident investigations with automated vehicle data. The workshop will begin with brief overviews of the data used for vehicle automation and the way traffic data is used in research to improve safety and public health. The remaining time will be devoted to an interactive discussion exploring current challenges to recording information during accident investigations and creating a wish list of new data to include.

Presented by
Michael Clamann - Senior Human Factors Engineer, UNC Highway Safety Research Center
Katherine Harmon - Postdoctoral Research Associate, UNC Highway Safety Research Center

Criminal Justice/Law Enforcement

It’s Not Rocket Science; It’s a Pat Down: Conducting Better Roadside Searches on Female Subjects

Conducting searches during traffic stops is a multi-faceted area that can be difficult to navigate, especially with female subjects. Policies and training (or lack of) can lead to an ineffective pat down. Women offenders will often hide contraband in sensitive areas that they think an officer will not check or cannot check. The limited availability of female officers with the lack of clear guidelines or strategies to conduct a thorough search adds to this issue. Missing contraband is a risk to officer safety and the fear of making a wrong move is no excuse. This can be alleviated through communication, empathy, and a strong foundation of legal knowledge. This presentation will give officers (both male and female) tools and strategies for searching female subjects during traffic stops. Using tools that officers already have, such as detecting deception, in addition to the strategies presented, officers will gain confidence and proficiency to never miss a piece of contraband again.

Presented by
Alexandra Bentley - Senior Patrol Officer, Forest City Police Department
Thursday 8 August 2019

7:00am – 12:00pm
Registration Open

7:00am – 8:00am
Coffee and Networking

8:00am – 9:00am
Third Plenary Session

9:15am – 10:15am
Breakout Session Nine

**Criminal Justice/Law Enforcement**

**eCitation Interface with NCAWARE: Unified Technologies**

Attendees will receive an overview of eCitation which has streamline the process for Law Enforcement Officers in the field by providing a seamless electronic transition from the nonarrest violation process in eCitation to the arrest process in NCAWARE. Additional benefits of interfacing the two systems includes reduce paper production and the ability for Magistrates to receive and resume the arrest process in an electronic manner. This time will also be used to ask questions and review existing eCitation features.

Presented by

**Other Traffic Safety Priorities, Child Passenger Safety**

**Beyond Scare Tactics and Statistics: Building Messaging That Works**

In our scrolling and streaming culture, we all have to work strategically to get through the noise and encourage behavior change in our target audience(s). This session will review behavior change communication strategies and provide resources and best practices for any organization running a social media page, social marketing effort, campaign, or presentation to the public.

Presented by
Kiwanuka-Tondo, Director of Graduate Programs, NCSU Department of Communication
Tracy Anderson - NC Vision Zero Coordinator, NCSU Institute for Transportation Research and Education
Distracted Driving Enforcement Strategies

This session will discuss the different types of distracted driving (manual, visual, and cognitive). It will also cover applying distracted driving safety strategies to reduce distracted driving, and how to identify key elements necessary for documenting distracted driving violations.

Presented by
Cheryl Leonard - Assistant Director, North Carolina Governor’s Highway Safety Program
Debroah Leonard - Safety Engineer, North Carolina Department of Transportation

All About the Blood: Basics on How Properly to Get Implied Consent and Hospital Blood

Basics on how to properly get implied consent and hospital blood results.

Presented by
Ike Avery - Highway Safety Czar, North Carolina Conference of District Attorneys

North Carolina Motor Vehicle Crash Injury Data Linkage & Integration

North Carolina is a leading state in terms of motor vehicle crash (MVC) report data collection and analysis. In addition, NC has a long history of capturing and analyzing health outcome data for the development of evidence-based programs and policies. However, NC has not leveraged its strengths into developing a fully integrated MVC-health outcome data system. This session will provide information about the following:

- The importance of strategic planning for data integration
- The importance of data documentation for data integration
- A summary of completed and ongoing statewide data linkage projects
- And an overview of publicly available web-based reports using linked crash report-health outcome data for describing MVCs involving pedestrians/bicyclists.

Throughout the session, we will solicit audience input regarding next steps, future web-based reports, and how to overcome barriers to developing a successful and effective statewide data integration system.

Presented by
Katherine Harmon - Postdoctoral Research Associate, UNC Highway Safety Research Center
Kathy Peticolas - Project Manager, Carolina Center for Health Informatics

Drugged Driving: Innovative Community Prevention Strategies

We propose to offer a 1 hour interactive interdisciplinary training on preventing drugged driving in communities. Drugged driving is a trending public health topic of national importance given the growing legalization of recreational use of marijuana, increases in marijuana availability and use, and the current opioid crisis. While the public health community has successfully reduced rates of drunk driving, comparatively little has been done to prevent drugged driving. Attitudes that driving after using marijuana or prescription drugs, including opioids, is not harmful, are pervasive.
Our session will focus on helping traffic safety professionals brainstorm, prioritize, and strategize about the implementation of concrete actions to prevent drugged driving in their communities. We will encourage attendees to think critically about the needs of their community and offer tangible action ideas and strategies for community change.

Presented by
Rebecca Stelter - Research Scientist, iRT
Allison Schmidt - Research Scientist, iRT

Child Passenger Safety

CPS Trivia

Techs will be challenged with questions about technical information in a question and answer session based on the TV show, Jeopardy!

Presented by
Allan Buchanan - Injury Prevention Specialist, North Carolina Office of State Fire Marshal

10:30am – 11:30am

Breakout Session Ten

Bike/Ped

Understanding Pedestrian and Bicycle Crash Types

Crash types and groups can help transportation professionals better understand pedestrian and bicyclist crash problems and select countermeasures. During this session, researchers from the UNC Highway Safety Research Center will explain how to assign typologies to pedestrian and bicyclist crashes and share findings from data collected in North Carolina. They will share data about the most common types of crashes, talk about factors that contribute to these crashes, and identify countermeasures that can help solve safety problems and prevent crashes from occurring.

Presented by
Dan Gelinne - Research Associate, UNC Highway Safety Research Center

Other Traffic Safety Priorities, Child Passenger Safety

Creating Partnerships Through Community Outreach

The purpose of this presentation is to provide a basic working knowledge of using outreach programs to build partnerships in the community. We will focus on basic event planning to include: preparation, implementation and evaluation. These three aspects are critical components and we will discuss their individual values and how to effectively utilize them for community events. For example, we will cover aspects such as recruitment of volunteers, promotion through social media, and post event evaluation. This presentation will incorporate partners such as: WATCH4meNC, GHSP and National Child Passenger Safety. These initiatives along with local businesses and
civic organizations will be included in this discussion to represent the importance of building partnerships on a national, state and local level while utilizing resources that are available in individual communities. This session will also preview outreach resources provided by NC Vision Zero. This presentation can benefit law enforcement, government agencies, non profits and community organizations.

Presented by
Lora Gilreath - Community Police Officer, Kill Devil Hills Police Department
Jody Lewis - Detective, Kill Devil Hills Police Department
Tracy Anderson - NC Vision Zero Coordinator, NCSU Institute for Transportation Research and Education

Impaired Driving
Seven Dwarfs:
How to Gather the Most Information from Various Personality Types

Think about it: people law enforcement encounter has a trait of one of the Seven Dwarfs. This class will break down those traits and discuss how officers need to modify their investigative style to gain the most information from the personality the officer encounters.

Presented by
Eric Sweden - Lieutenant, Raleigh Police Department

Criminal Justice/Law Enforcement
Drones in Reconstruction

Learn about how the North Carolina State Highway Patrol uses drones in crash mapping and evidence collection.

Presented by
Alex Justice - Sergeant North Carolina State Highway Patrol
John Collins - Sergeant, North Carolina State Highway Patrol

Other Traffic Safety Priorities
Collecting Seat Belt Data

This presentation includes a the current and previous seat belt study results and suggested data collection practices for law enforcement and local agencies.

Presented by
Daniel Findley - Senior Research Associate, NCSU Institute for Transportation Research and Education
Sarah Searcy - Bicycle and Pedestrian Program Manager, NCSU Institute for Transportation Research and Education
**Motorcycle Safety in North Carolina: The State of the State**

Are fatalities among motorcycle riders increasing in North Carolina? Do motorcyclists approve of helmet laws, training and other safety programs? What countermeasures are effective in preventing crashes and injuries among motorcyclists? In this session, we’ll discuss trends over the past 10 years in motorcycle crashes and fatalities in North Carolina. We’ll also share results of a survey of 800 riders in NC, and describe approaches that work to reduce motorcyclist crashes, injuries and deaths.

**Presented by**
Arthur Goodwin - Senior Research Associate, UNC Highway Safety Research Center
Yudan Wang - Senior Research Associate, UNC Highway Safety Research Center

**Criminal Justice/Law Enforcement**

**Winning Reports**

It all starts with a good report; writing a winning report wins cases.

**Presented by**
Emerson Carroll - Lieutenant, Halifax County Sheriff’s Office

**Other Traffic Safety Priorities**

**How to Expand Employer-Based Traffic Safety Programs Through Assistance from State Highway Safety Offices**

The intention of this session is to promote a tutorial in the form of a website portal developed to aid State Highway Safety Offices (SHSOs) in the development or enhancement of employer-based traffic safety programs. This project has developed ways to improve outreach of road safety materials to employers through the SHSOs in an effort to expand road safety education and awareness efforts. This includes information regarding partnering opportunities with SHSOs and other organizations to build, pilot and implement new processes to enhance public safety for employers, their families and the communities in which they live. This tutorial in the form of a website portal was piloted featuring five pilot states with varying levels of implementation of employer-based traffic safety programs within the SHSO. With guidance from the portal, each state established successful partnerships not only with employers in their state, but also expanded their reach to other safety organizations throughout the state.

**Presented by**
Tara Casanova Powell - Principal, Casanova Powell Consulting

11:45am – 1:30pm

**Booze It & Lose It 25th Anniversary Lunch**