Warm weather...what's needed for traffic safety

David Pabst
Director
WisDOT Bureau of Transportation Safety

We know that when the weather is nice, motorcyclists and bicyclists are out in large numbers, many with diminished skills from being off their rides during the ill-natured winter we just endured. Now is the time to encourage those you know who ride to use their protective gear—every time, every ride.

About 34% of motorcycle operators killed on Wisconsin’s roads in 2016 (the most recent year for which data is available) did not have a valid motorcycle license.

Proper training greatly improves people’s chances of arriving at their destinations safe and sound. Wisconsin is a national leader in motorcycle safety programs, and we want to continue to reduce the number of motorcyclist fatalities and injuries on our state’s roadways.

Motorcycling is inherently more dangerous than driving a car. Handling characteristics are unique.

Crash data comes full circle

by Randy Wiessinger, WisDOT Bureau of Transportation Safety (BOTS) Statewide Law Enforcement Liaison

Three recent, inter-connected developments are bringing crash data full circle:

- law enforcement agencies are using the new crash report form (DT4000) to submit all crash reports electronically via TraCS
- the Crash Records Unit is now within the WisDOT Bureau of Transportation Safety (BOTS)
- Community Maps is updated and improved

Taken together, these important developments are making crash data captured by law enforcement available locally almost real-time. This puts some powerful tools in the hands of law enforcement, Traffic Safety Commissions, and other stakeholders who can now access their local crash data 24 hours after the DT4000s are transmitted to the state.

BOTS Law Enforcement Liaisons are working with Traffic Safety Commissions across the state to demonstrate the usefulness of having up-to-date, accurate and comprehensive crash data available via Community Maps. They are

Progress improving motorcycle safety

The Wisconsin Motorcycle Safety Program (WMSP), along with its many safety partners, is making good progress improving motorcycle safety statewide. WMSP, managed by the WisDOT Bureau of Transportation Safety, focuses on:

- Raising public awareness of what’s needed for safe motorcycling
- Improving rider training

Wisconsin news

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Crash data comes full circle

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Progress improving motorcycle safety

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and rider skills must be maintained at a level adequate for safe operation. But many riders in Wisconsin have never even taken a basic rider education course that would benefit them immeasurably and could even save their lives.

For further details about progress with rider ed and the ongoing campaign to raise public awareness of motorcycle safety issues, see the article that starts on page 1.

Remember … motorcycling is a life-long learning experience!

Improving motorcycle safety from page 1

Raising public awareness

This ongoing campaign aims to raise awareness in several key areas:

- How motorcyclists and other drivers can safely share the road
- How motorcyclists should get properly trained and licensed, and wear full protective gear

In 2016, 34% of motorcycle operators killed on Wisconsin’s roads did not have a valid motorcycle license. The State Patrol’s April Law of the Month explains how to get properly licensed.

Also in 2016, 79% of motorcyclists in fatal crashes weren’t wearing a helmet.

A wide range of media are used to raise public awareness: PSAs, billboards, Dynamic Message Boards, brochures, posters, bumper and helmet stickers. This is along with information on WisDOT’s website and messages via Facebook and Twitter, TV spots and extended videos. One 14-minute video, “Riding in Wisconsin: Five Stories, One Vision,” tells the real-life stories of people seriously injured in crashes, with clear messages of how this could have been avoided.

Motorcyclist fatalities and incapacitating injuries by age group — Wisconsin, 2016

Older motorcyclists, like older motorists, need to drive more defensively to adjust for slower reactions and the likelihood that a crash will take a bigger toll. Continuing training is important for baby boomers who haven’t ridden for many years. Many people switch to 3-wheeled motorcycles for greater safety and convenience.

Motorcycle traffic safety facts

United States, 2016 data from NHTSA

- 5,286 motorcyclists were killed in 2016, up 5% from 2015
- Per vehicle-miles-traveled, motorcyclist fatalities occurred nearly 28 times more frequently than passenger car occupant crash fatalities
- Motorcyclists involved in fatal crashes had the highest percentage of alcohol-impaired drivers compared with other vehicle types:
  - motorcycles—25%
  - passenger cars—21%
  - light truck—20%
  - large trucks—2%
- NHTSA estimates that helmets saved 1,859 motorcyclists’ lives in 2016, and that 802 more lives could have been saved if all motorcyclists had worn helmets

This poster is a product of the continuing partnership of WisDOT with ABATE of Wisconsin. A previous poster highlighted the importance of getting properly licensed.
Improving motorcycle safety  from page 2

One key strategy is to reach out to motorcycle riders where they are and encourage people to get formal rider training. In 2010, WMSP launched THE REF, a 42-foot-long trailer containing two classrooms with these outreach resources. Each riding season, THE REF has been present at a wide range of events geared toward the motorcycling community along with other events that attract large crowds.

Now, THE REF has been retired and a new approach is being used which provides more flexibility and better contact with the public. Two trailers carry outreach resources to events, including motorcycle riding simulators called Safe Motorcycle Awareness & Recognition Trainers (SMARTainers), and there’s more flexibility with where these resources can be deployed. For instance, they can be placed along with other traffic safety-related activities, which can help attract a crowd.

Click here for upcoming events.

Motorcycle safety resources

Visit the website of the Wisconsin Motorcycle Safety Program for information on:
- motorcycle training sponsors and locations
- advanced rider courses
- gear and equipment
- safe operation of motorcycles

Rider ed

Click here to learn more about the full range of courses offered by the WMSP rider education program.

These courses are steadily being updated and improved. In 2016, WMSP, in partnership with the Motorcycle Safety Foundation (MSF), continued implementation of the first new basic rider course curriculum since the introduction of the Basic RiderCourse (BRC) in 2001. Wisconsin was the first state to field test, pilot test, and fully implement the Basic Rider-Course updated (BRCu) curriculum statewide. WMSP has also brought two new curricula to the state. The Basic Bike Bonding RiderCourse (BBBRC) and the Ultimate Bike Bonding RiderCourse (UBBRC) can now be offered at any qualified training site by a traveling team of certified RiderCoaches. This

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Improving motorcycle safety
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This autumn, Bombardier, one of the leading manufacturers of 3-wheel motorcycles, will introduce a new model costing about half the current entry-level one, and this might greatly boost trike ridership nationwide.

Motorcycle Issue Peer Exchange

The 2018 Governor’s Conference on Highway Safety will be held August 21-23 in Lake Geneva. From 3-5 p.m. on August 21, the pre-conference day, WMSP will have a Motorcycle Issue Peer Exchange that’s more of an open forum as opposed to a directed workshop. Participants will register ahead of time, and, as part of their registration, they’ll be asked to submit topics for discussion so there is a loose agenda for the event.

Contact Sarah Buzzell, WMSP manager, at (608) 709-0080 or MotorcycleSafety@dot.wi.gov

In early April, RiderCoaches learn the updated curriculum for the 3-Wheel Basic RiderCourse (3WBRC). This training was held at the Madison College Public Safety Training Facility in Columbus. Click here for details of how this course is taught at Madison College.
In recent years, the number of pedestrian fatalities in the U.S. has grown substantially faster than all other traffic deaths. The number increased 27 percent from 2007 to 2016, while, at the same time, all other traffic deaths decreased by 14 percent. During this period, pedestrian deaths as a proportion of total motor vehicle crash deaths increased steadily, from 11 percent to 16 percent. Pedestrians now account for a larger proportion of traffic fatalities than they have in the past 33 years.

In the U.S., pedestrian fatalities reached a high of 8,096 in 1979 and then declined almost 50 percent to a low of 4,109 in 2009. But, since then, fatalities have been rising both nationwide and in Wisconsin. Pedestrian fatalities in the U.S. reached 5,987 in 2016, the highest number since 1990.

In Wisconsin, the average annual number of pedestrian fatalities during the five-year period 2011-15 was 46. In 2016, there were 49, and the preliminary total for 2017 is 57.

The exact causes of this trend are unclear, but possible contributing factors include:

- higher driving and walking levels since the Great Recession
- an aging population with increasing vulnerability to injury when walking and decreasing ability to drive safely
- drunk and drugged driving and walking
- distraction of drivers and pedestrians by cell phone conversations and texting

Each year, the Governors Highway Safety Association (GHSA) publishes its Spotlight on Highway Safety. This year’s issue, using preliminary 2017 data, reports that two recent trends present an interesting correlation with rising pedestrian fatalities:

- the dramatic growth in smartphone use nationally
- the legalization of recreational marijuana in several states.

While the report does not imply a definitive link between these factors and pedestrian deaths, it is widely accepted that both smartphone and marijuana use can impair the attention and judgment needed to navigate roadways safely, both behind the wheel and on foot.

The reported number of smartphones in active use in the U.S. increased 236% from 2010 to 2016. Analysis of data from the National Electronic Injury Surveillance database shows the number of cellphone-related emergency department visits is increasing in parallel with the prevalence of cell phone use. Many of these injuries are sustained while the user is engaged in text messaging rather than conversation.

The seven states that legalized recreational marijuana use between 2012 and 2016 experienced a collective 16.4% increase in pedestrian fatalities during the first half of 2017, while all other states saw a combined 5.8% decrease.

Pedestrian fatalities and injuries

Worrisome trend . . . and proven countermeasures
Countermeasures

The GHSA report also discusses promising evidence-based strategies to improve pedestrian safety. These strategies use a comprehensive “3E” approach that includes targeted enforcement, engineering improvements, and public education. They are organized in the following categories:

- Raising public awareness
- Making pedestrians more visible to drivers
- Increasing separation of pedestrians from motor vehicles
- Engineering and enforcement measures to reduce speeds

Higher vehicle speeds are strongly associated with a greater likelihood of pedestrian crashes and with more serious and fatal pedestrian injuries. For this reason, efforts to reduce speeding on streets with pedestrian activity are a major focus of many municipal traffic safety programs.

GHSA provides further details about all these strategies in its report Everyone Walks. Understanding and Addressing Pedestrian Safety.

HVE grant opportunities in Wisconsin

In Wisconsin, WisDOT BOTS has been providing funding support for pedestrian HVE efforts in communities including La Crosse, Green Bay and Milwaukee. BOTS will be contacting law enforcement agencies whose local data shows they have the most acute safety challenges to supplement existing enforcement related to pedestrian and bicyclist safety. Enforcement should focus on behaviors that lead to crashes—failure to yield, red light violations, speeding in advance of marked and unmarked crosswalks, sudden pedestrian movements, and bicyclist violations of stop signs and stop lights.

High visibility enforcement (HVE)

Nationwide, in recent years, HVE has proven to be effective at reducing motor vehicle crashes. Now, studies show that HVE can also help improve pedestrian safety. For instance, a NHTSA-funded study in Gainesville, Florida, showed that HVE conducted over a full year led to significant increases in driver yielding rates and improved pedestrian safety. The study included community feedback signs and low-cost education and engineering interventions that were closely coordinated with the enforcement component.

During the initial phase of the study, yielding increased at the crosswalks that received targeted enforcement (32% to 62% for staged crossings; 54% to 83% for regular crosswalk users) as well as at comparison sites with no targeted enforcement (37% to 59% for staged crossings; 50% to 73% for regular crosswalk users).

Then the researchers conducted a follow-up study in Gainesville to document driver yielding rates at the same study sites four years after the initial HVE program.

They found that driver behavior continued to improve, producing significantly higher rates of driver yielding than when the HVE program ended four years earlier (77% at sites that had received targeted enforcement, and 77% at comparison sites). Further, these higher driver yielding rates were related to substantially lower pedestrian/vehicle crash rates.

Pedestrian fatalities, United States, 2016

Travel lanes: Non-intersection locations such as midblock, highway

Non-travel lanes: e.g. shoulders, driveways

72%

18%

10%

Intersections

Pedestrian fatalities by age, Wisconsin 2017, preliminary

The large group of baby boomers, who are now 54-72 years old, may be one possible factor that is contributing to the upward trend in pedestrian fatalities.
NHTSA has created *Pedestrian Safety Enforcement Operations: A How-To Guide* outlining best practices and procedures to operate pedestrian safety enforcement. (See excerpt below.) BOTS highly recommends that targeted law enforcement agencies review this document before submitting their work plan.

The study *Crosswalk Yielding Enforcement* (Findley et al, 2016), shows that the following enforcement scenarios create a sustained effect on driver yielding behavior:

- medium intensity, long duration (one five-day intervention, then one per week on alternating weeks)
- low intensity, long duration (one per week on alternating weeks)

See news report about this study.

Grants are targeted to be multi-jurisdictional, and grantees are required to conduct enforcement operations only in high-risk zones.

**Education messages: Motorists**
- Yield the right-of-way to pedestrians in crosswalks
- Reduce speed. Be ready to yield to pedestrians when traveling straight, including people crossing from either the right or the left
- Look in both directions for vehicles, bicyclists, and pedestrians at a stop sign or stop light
- Look for pedestrians in the crosswalk on the left side of the intersection before turning left

**Education messages: Pedestrians**
- Cross the street within crosswalks
- Do not cross from between parked cars
- Watch for left-turning cars, especially when crossing driveways and minor streets along busy streets
- Be aware that motorists may not see you if they are turning right and you are approaching from their right
- Be aware that motorists may not see you at night, especially if you aren’t wearing bright/retroreflective clothing

**Enforcement: Behaviors to Target**
- Motorists speeding, especially on streets in urban areas
- Motorists not yielding to pedestrians
- Motorists driving while impaired
- Pedestrians disobeying traffic signals

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**Pedestrian crosswalk safety operation ~ Sample diagram for posted speed limit of 25 mph**

In this scenario, one officer acts as a decoy and is positioned at the edge of the crosswalk. A second officer acts as a spotter and is positioned in clear view of the crosswalk, the decoy officer, and approaching traffic. The third officer is positioned using a motor vehicle or motorcycle.

All officers should have handheld radios, set to a predetermined frequency to allow for communication. The decoy officer should have educational handouts (if used) to provide to pedestrians. The spotter should have a radar/LIDAR unit to measure the speed of traffic approaching the crosswalk, as well as a clipboard and data collection sheets to record infractions. The police officer also has educational handouts (if used) to provide to drivers.
State Patrol progresses with DRE and ARIDE trainings

Drug-impaired driving is a complex and growing problem. For law enforcement, testing drivers for alcohol use is routine and standardized, but the same is not true for the identification of driving under the influence of drugs. The International Drug Evaluation and Classification (DEC) Program was developed to train police officers to recognize the symptoms of recent drug use.

Within this program, the 16-hour ARIDE (Advanced Roadside Impaired Driving Enforcement) training was developed by NHTSA, with input from the International Association of Chiefs of Police. ARIDE fills the gap between the training required to perform Standardized Field Sobriety Testing (SFST) and the training required to become a Drug Recognition Expert (DRE).

The Wisconsin State Patrol has a strategic goal of having all their troopers, inspectors and first-line supervisors (sergeants) receive ARIDE training. Another goal is to have more DRE-certified personnel. Currently, four State Patrol personnel are certified DREs, and two more are being trained. From June through September, these DRE-certified personnel will be teaching a series of 10 or 11 ARIDE trainings at the State Patrol Academy.

Recently, the Governor’s Highway Safety Association and the Foundation for Advancing Alcohol Responsibility provided a $20,000 grant to the WisDOT BOTS to bolster ARIDE trainings in the state.

Officer Steve Krejci of the Milwaukee Police Department is the DRE/SFST state coordinator. Regarding the DRE training for State Patrol personnel, he says, “I’m so glad that they are on board with sending personnel to the DRE School. There are a lot of small agencies around Wisconsin that are just too small and can’t afford to send anyone to the DRE School, so those areas have been without DREs for a long time. Some counties don’t have any DREs, while others benefit from having several of them. Hopefully, in the future, more State Patrol personnel will be certified as DREs so we can have statewide coverage.”

Contact State Patrol Major Anthony Burrell at anthony.burrell@dot.wi.gov.

Get to know …

Kari Kinnard
Regional Program Manager
National Highway Traffic Safety Administration (NHTSA), Region 5

Kari is the NHTSA Regional Program Manager for Region 5, which includes Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin. She is assigned to Wisconsin for program management duties, and she is also the regional coordinator for the Impaired Driving Program.

Along with being the Transportation Safety Institute (TSI) regional training coordinator and instructor, she manages the Law Enforcement Liaison (LEL) contract, the State Judicial Outreach Liaison (JOL) contract, and the older driver program. She also oversees assessments, such as NHTSA’s Pedestrian Program Training and Assessment.

Kari began her career in the fields of advertising, communications, marketing and public relations. She then moved into nonprofit management, and for nine years she was the state executive director for Mothers Against Drunk Driving (MADD) in Wisconsin. As a registered lobbyist, she was instrumental in the passage of state and federal legislation, including, in Wisconsin, the .08 per se law, a victim’s rights bill, the primary enforcement seat belt law, and an ignition interlock law.

She joined NHTSA in 2009 in the Impaired Driving Division at Headquarters in Washington D.C. In 2012, she joined the Region 5 office in the Chicago area.

Kari has served on numerous state, regional, national and international boards, and she has received many awards, including the MADD National, Robert C. Shearouse Employee of the Year award in 2003, and the NHTSA Administrators Award for Superior Achievement in 2017.
Crash data comes full cycle  from page 1

showing how this can help with the life-saving work of improving traffic safety at the local level.

Community Maps can be searched by county, start and end dates, crash severity, and by using filters such as: safety belt use, speed, alcohol or drug involvement, and involvement of motorcyclists, bicyclists or pedestrians.

Those involved with local traffic safety issues can identify crash trends and safety issues. This, in turn, helps with the process of identifying which community partners—such as law enforcement, schools, courts—need to be at the table when deciding how to deal with crash causes. This comprehensive local approach can help with the process of improving a community’s traffic safety culture.

Along with the maps, the Community Maps website includes a “TSC Resources” section with a schedule of Traffic Safety Commission meetings statewide and in-depth County Profiles with a wealth of traffic safety-related data.

2017–20 Strategic Highway Safety Plan

Wisconsin’s Strategic Highway Safety Plan (SHSP) provides a statewide comprehensive, synchronized framework for reducing traffic crashes, fatalities and injuries over a three year period. The 2017-20 SHSP is now available. The plan:

• identifies the state’s foremost traffic safety problems
• recognizes opportunities and processes to address these problems
• determines the appropriate approaches and countermeasures

An article in the previous issue of this newsletter (click here, page 11) explains how the SHSP is part of interconnected WisDOT plans, local organizations, and resources such as Community Maps and TraCS. The article links to a “blueprint” of how local organizations can use these elements to improve local traffic safety.

A major SHSP priority is empowering local agencies and organizations to improve traffic safety in their own communities by using both statewide and local tools and resources. The SHSP focuses on the 10 most important traffic safety issues, and these include two topics covered in this issue: motorcyclist safety and pedestrian safety.

The next issue of this newsletter will delve in greater detail into how Community Maps can be useful in improving local traffic safety.

Contact Randy Wiessinger at rpw@wiessinger.com.

Crash report forms

From the WisDOT Crash Records Unit:

• Law enforcement agencies are encouraged to complete DT4000 forms as soon as possible to ensure timeliness of crash report availability and data collection efforts.
• Agencies are also encouraged to discard or recycle all paper MV4002 forms.
• All driver reported crashes must be completed using the Wisconsin Driver Report of Crash (DT4002) via the WisDOT website at: wisconsindot.gov/crashreporting. The form must be completed only by the driver, vehicle owner, or injured participant(s).
• Information cards (see above) to hand to crash participants are available on the website. The cards explain the current requirements.
• Officers who want to be added to, or removed from, any email distribution lists should email their request to: crash.database@dot.wi.gov.

Crash Records Unit hours: 8:00 am - 4:30 pm Mon-Fri
TraCS service desk hours: 8:00 am - 4:00 pm Mon, Tues, Thurs, Fri
8:00 am - 3:00 pm Wed

We appreciate your support and patience with the new forms.

Teaching Safe Bicycling

Sponsored by the WisDOT Bureau of Transportation Safety (BOTS) and the Bicycle Federation of Wisconsin, this free, day-long “Train-the-Trainer” workshop provides interested adults with the skills needed to host a youth bicycle rodeo in their local community. It includes classroom training along with hands-on instruction.

Milwaukee: May 24
Madison: May 25
La Crosse: May 25
Menasha: June 1
Ashland: June 15

For further details, contact Ian Wright, BOTS bicyclist/pedestrian safety program manager, at (608) 709-0066 or ian.wright@dot.wi.gov.
Available for special events

Transportable Evidential Breath Test (EBT) units

by Heather Barkholtz, program chief, WisDOT Bureau of Transportation Safety’s Chemical Test Section

The Chemical Test Section now has transportable EBT units that can be used for special events (up to 100 days). Chem Test will certify the instrument prior to deployment. Once the event is complete and the instrument is returned, Chem Test will download all test data and certify the instrument once again. This process ensures that all collected breath alcohol information is evidential for use in the adjudication process.

Transportable EBTs have the same technology and general operation as regular EBTs; the only difference is they require some minor set-up and can be run off of 12V DC or 120V AC power.

A transportable instrument can be thought of as an EBT-in-a-box. Each box (see image ‘EBT_Box’) contains an EBT, standard outlet plug, cigarette lighter converter, printer, mouthpieces, biohazard bags (for used mouthpieces), thermometer, and keyboard (see images ‘EBT’ and ‘Supplies’).

Operators need to hold a valid Class II EBT permit and take an additional in-person training (two hours, maximum) on the transportable device. This training covers set-up, operation, and troubleshooting. Once completed, EC/IR II.t would be added to their Class II operator’s permit.

Interested parties should contact Heather Barkholtz to describe their event and the proposed EBT location conditions: heather.barkholtz@dot.wi.gov or (608) 243-2949.

State Patrol progresses with predictive analytics

In 2017, the leadership of the Division of State Patrol established a Project Action Team to develop a process to utilize safety data to target law enforcement activities through predictive analytics. The initiative allows DSP to analyze where crashes may happen and deploy resources to reduce crash activity through high visibility enforcement. DSP is putting that information into a data mining system to generate an assessment as to where and when DSP needs to target its resources. This will enhance the ability to operate efficiently and effectively.

A further goal is to also share crash data with local law enforcement agencies so they can use data-driven processes to deploy their resources at the right location and the right time to reduce crashes.

The DSP Predictive Analytics tool is delivered in two ways. Utilizing two existing resources—Mobile Architecture for Communication Handling (MACH) and Community Maps crash mapping (see page 1)—DSP is able to harness more timely, accurate and consistent crash data that is now made available on a daily basis from WisDOT’s new crash database, which went live on January 1, 2017. DSP harnesses this (now) 100% electronically-supplied crash data to assist with the most effective and efficient deployment planning, in-car access to Troopers working in the field utilizing MACH, and the evaluation of deployment results. While MACH provides in-car analytic capabilities for law enforcement in the field, DSP leadership can utilize Community Maps to target law enforcement deployments in the areas of greatest safety challenges based on time of day, day of week, location, and other data-driven facets. Also, by utilizing the crash data provided through Community Maps, DSP has been able to bolster its statutory responsibility to provide crash locations to local safety partners.

The Predictive Analytics tool was completed by the end of 2017 and has been presented to each of the DSP regional posts. In 2018, DSP will utilize the tool and continue to improve it to further develop its predictive nature, the heat mapping component, MACH mapping visualizations, and reporting processes. These additional components will further improve the accuracy of the predictive model.

For more on predictive analytics, see these presentations from the 2017 Governor’s Conference on Highway Safety. The 2018 Governor’s Conference (see page 1) will include a predictive analytics workshop.

Contact Randy Romanski, WisDOT BOTS, at Randy.Romanski@dot.wi.gov