

TOWARD ZERO DEATHS

Because your life counts

Welcome West Central Minnesota Toward Zero Deaths Workshop

May 12, 2015



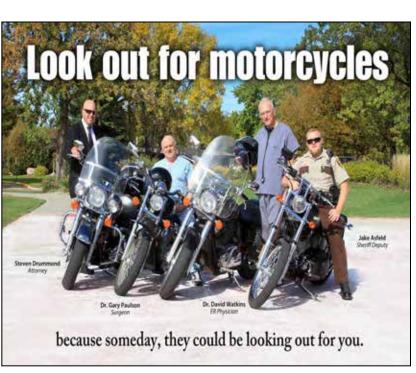
Mission

To move West Central Minnesota toward zero deaths on our roads using education, enforcement, engineering and emergency medical & trauma services.





TZD Cornerstone



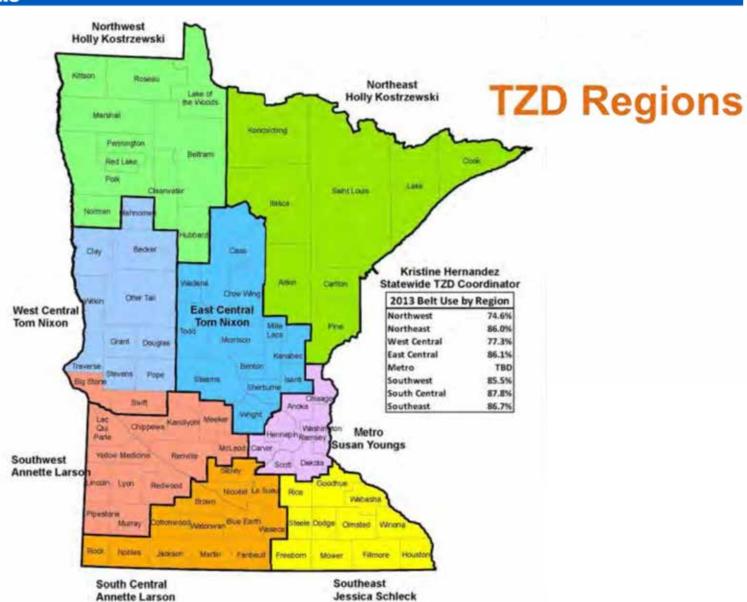
- Four "E" approach:
 - Enforcement
 - Engineering
 - Education & Outreach
 - Emergency Medical& Trauma Services
 - Everyone Else!



Year-to-Date Traffic-Related Deaths



As of May 11, 2015, there were 113 traffic-related deaths on Minnesota roads, compared to 96 deaths at this time last year.





What Have We Done Regionally?



Tom Nixon,
West Central Minnesota
Toward Zero Deaths
Regional Coordinator





2014-15 West Central Minnesota TZD Safe Roads Coalitions

- Douglas
- Otter Tail
- Stevens/Traverse/Grant
- Clay





Wifi Password to download the e-packet

Password: 6655

Room: 0



Clay County TZD



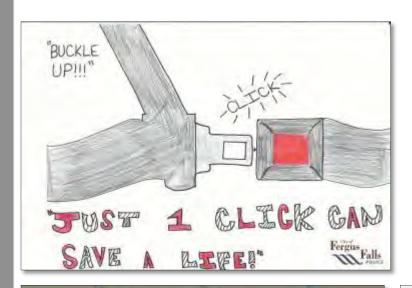








Otter Tail County Safe Communities









ZERO DEATHS



Otter Tail





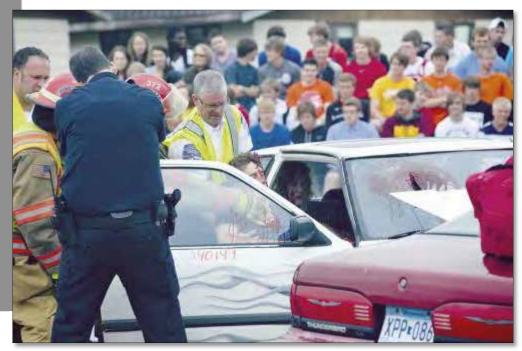
Stevens Traverse Grant TZD





Douglas County Safe Communities









DWI Kick Off News Conference







Distracted Driving











Follow us on Twitter and Facebook!



Follow us on Twitter: @MNTZD



Like us on Facebook: MNTZD









Goal: Zero Deaths





Minnesota's Traffic Safety Culture

Kristine
Hernandez,
Minnesota
Toward
Zero Deaths
Program
Coordinator





TOWARD ZERO DEATHS Because your life counts

Exploring Minnesota's TrafficSafety Culture

Kristine Hernandez
Minnesota Toward Zero Deaths Program Coordinator



What is Traffic Safety Culture?

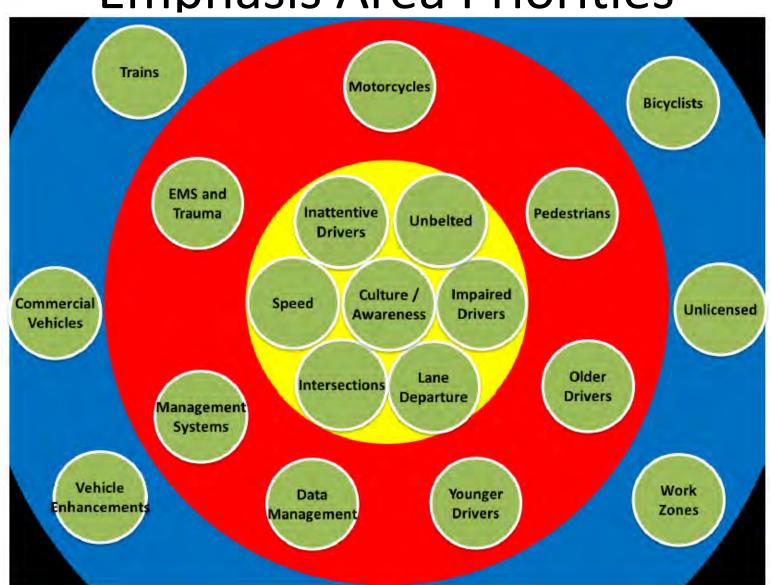
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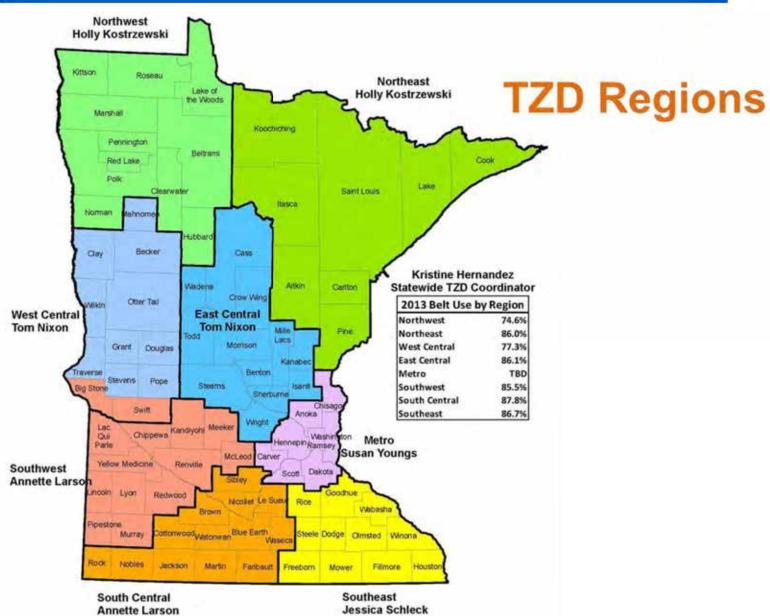
- Values
- Beliefs
- Norms
- Attitudes

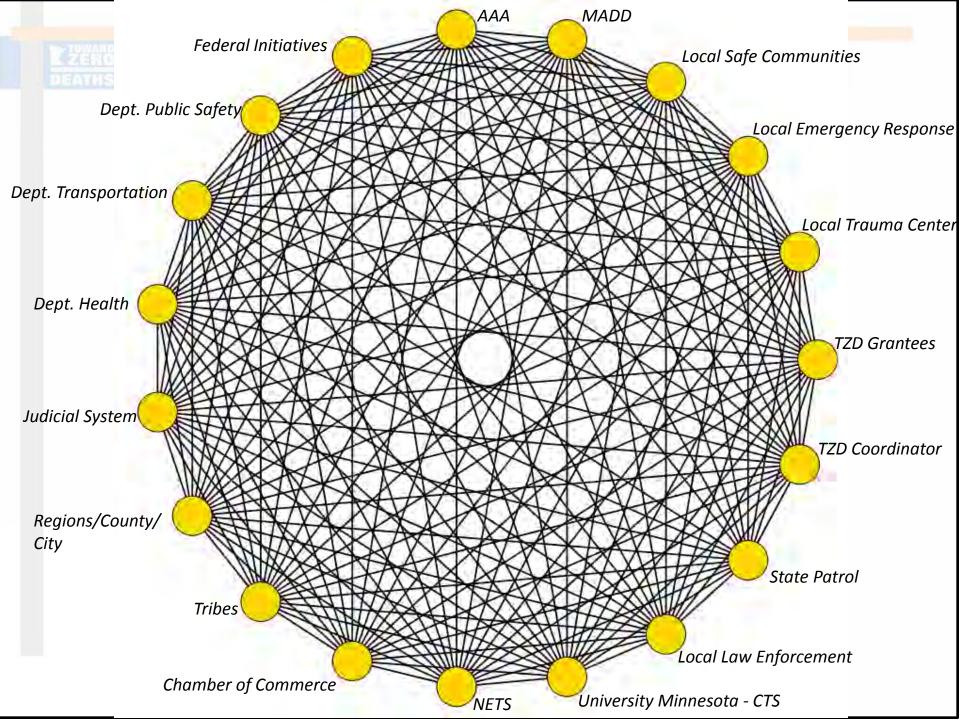




Emphasis Area Priorities









2015 TZD Regional Workshops



May 1:

Southwest – Morton

May 7:

Southeast – Rochester

May 12:

West Central – Fergus Falls

May 13:

Northwest – Bemidji

May 27:

Northeast - Duluth

May 29:

South Central – Fairmont

June 2:

East Central – Baxter

June 5:

Metro - Oakdale



MnDOT Work zone Safety Campaign 2014





Speak Up: Texting + Driving = Illegal







Speak Up: Texting + Driving = Illegal







Legislative Gains

2005

- .08 Blood Alcohol Content (BAC)
- Statewide Trauma System

2006

 Cell Phone Ban for Provisional/ Novice Drivers

2008

- Graduated Driver's License
- No Electronic Communications (text, e-mail, web access)



2009

- Booster Seat
- Primary Seat Belt

2010

DWI Administrative Sanctions/Ignition Interlock

2014

Parent Component for driver education



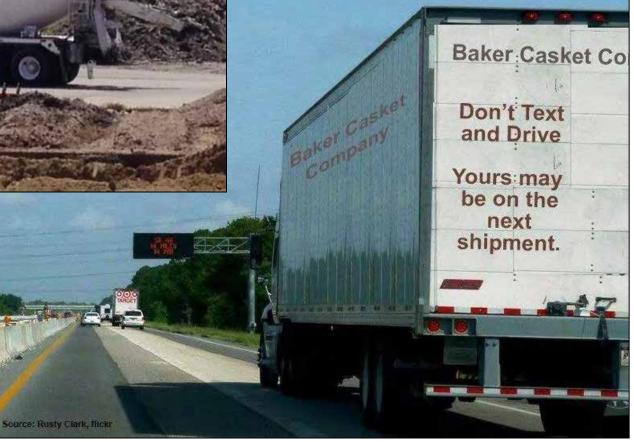
TZD Program Growth

	2003	2014
Seatbelt Use	82%	95%
Cable Median Barrier	0 miles	450 miles
% Treated @ Designated Trauma Hospital	67%	99%
TZD Safe Road Coalitions (funded & unfunded)	< 10	52
TZD Enforcement Grant Agencies	104 (41 grants)	283 (55 grants)
County Safety Plans and District Safety Plans	0	95
Ignition Interlock Participants	0	8,633
TZD Regions with MnDOT & MPS Leadership	0	8
Participants in Annual TZD Conference	110	961
DWI Courts	0	16





Traffic Safety Culture



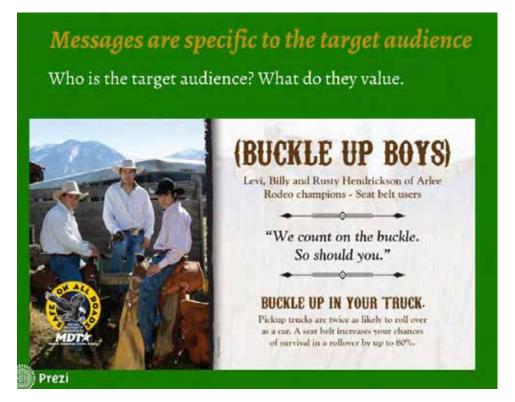


www.towardzerodeaths.org

TZD > The National Strategy.
The goal, establish Toward
Zero Deaths as the nation's
traffic safety vision.







http://plan2live.mt.gov/plan_your_ride.shtml









a safety movement from the Montana Department of Transportation





This New Zealand Road Safety Ad Features Older, Unsung Heroes Subtly-Scripted Ad Focuses on the Witnesses, Not the Drunk Drivers





Looking Forward

Toward Zero Deaths Goal

2020 Targets

- Less than 300 fatalities
- Less than 850 serious injuries





Goal: Zero Deaths

How do we get there?

Answer: Reduce deaths by one per month each month for the next 5 years (60 less in 60 months....Is that attainable?)

Lieutenant Don Marose
Minnesota State Patrol
don.marose@state.mn.us
651-297-7132

2012 NATIONAL SURVEY DRUG USE AND HEALTH (NSDUH)

- 22.6 million people (8.9%) have used illicit drugs in the past month
- 17.4 million consider themselves current marijuana users
- 60% only use marijuana
- 77% use marijuana in combination with other illicit drugs

TYPES OF DRUGS COMMONLY USED

Cocaine 2.3 million

Hallucinogens 1.0 million

Psychotherapeutics 6.3 million

Tranquilizers 1.8 million

Sedatives 0.3 million

Pain Relievers 4.7 million

Stimulants 1.2 million

WASHINGTON STATE (2006)

12% of 370 fatally injured drivers had marijuana in their systems at the time of the

crash.





PERCENT OF HIGH SCHOOL SENIORS REPORTING LIFETIME USE



70% alcohol (51% drunk)

45% marijuana



22% any Rx drug



13% narcotics other than heroin

5% cocaine 2% meth 1.5% heroin

SADD

More than 19% of high school seniors admitted driving under the influence of marijuana in 2010



U.S. STATISTICS

- > 19.5 Million illicit drug users (12 years old and up)
- > 56,000 12-17 year old dependent on inhalants
- 3.3 Million Americans used an ADHD substance last year

U.S. STATISTICS

- > 1.5 Million Emergency Room visits were associated with drug use/abuse (SAMHSA)
- > 56% of those were due to illicit drug use/abuse
- 600,000 were due to non-medical use prescription or over-the-counter medications

U.S. STATISTICS

- > 21% of 16-20 year olds reported driving under the influence in the last 12 months
- 15.1 million abuse prescription drugs (up from 7.8 million in last decade)
- 3% of 12-17 year olds reported current abuse of prescription drugs (2nd to marijuana and ahead of cocaine, meth, ecstasy, and heroin)

SAMHSA NATIONAL HOUSEHOLD SURVEY ON DRUG ABUSE

Marijuana is the most commonly used illicit drug, with 14.6 million users

7 million people (12 years and older) were users of psycho-therapeutic drugs taken non-medically

PARTNERSHIP FOR A DRUG-FREE AMERICA

20% of teenagers has abused a prescription painkiller to get high

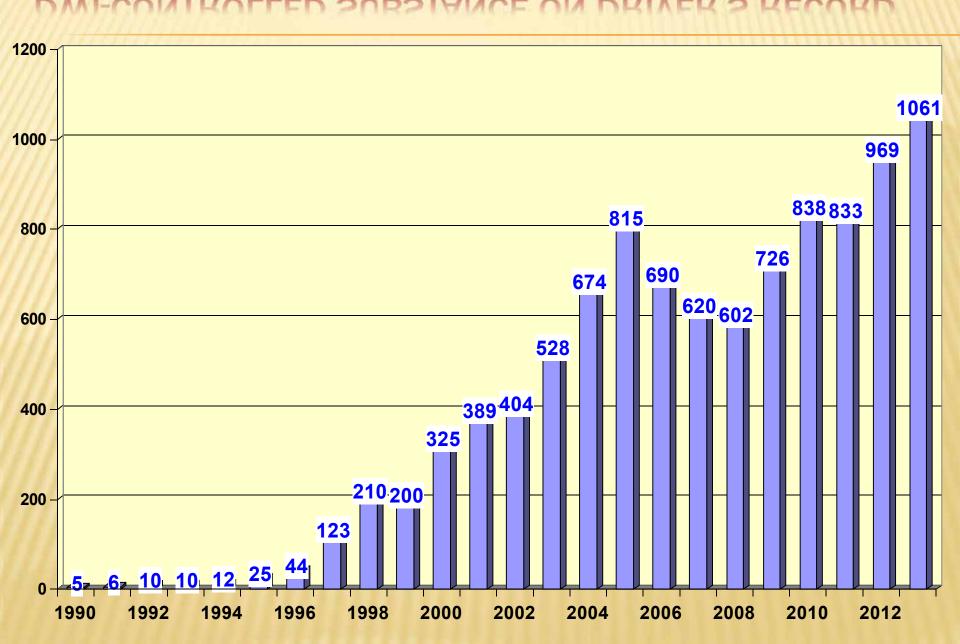
10% of teenagers has abused an OTC product (cough medicine)

MN STATISTICS

- Minnesota ranks 8th for incidents of driving under the influence of illicit drugs at 5.7%
- 1 in 6 high school seniors reported driving after using alcohol or drugs

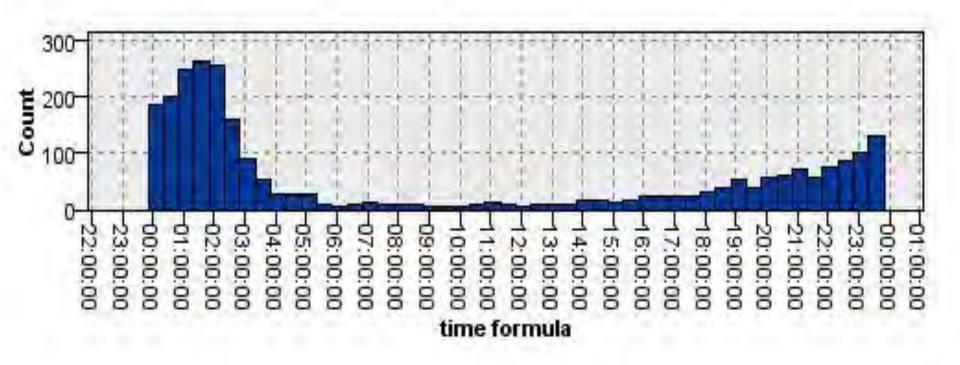
(Minnesota Student Survey)

DWI-CONTROLLED SUBSTANCE ON DRIVER'S RECORD



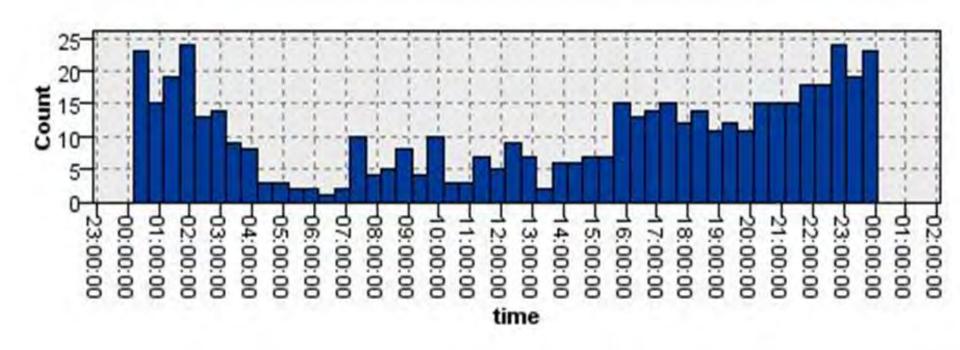
DWI ARRESTS BY TIME OF DAY

Alcohol



DWI ARRESTS BY TIME OF DAY

Schedule I and II Controlled Substances



WHAT IS A "DRUG"?



DEFINITION

Any substance which, when taken into the human body, can impair the ability of the person to perform designated tasks safely.





SOBRIETY TEST

Look at the photo above - if it looks right to you ...

You're Drunk

MSS 169A.20 DWI

SUBDIVISION 1: DRIVE, OPERATE, OR PHYSICAL CONTROL WHILE.......

- 1) Influence of alcohol
- 2) Influence of controlled substance
- 3) Knowingly under the influence of a hazardous substance
- 4) Combination of (1) and/or (2) and/or (3)
- 5) Alcohol concentration .08 or more at time of incident or w/in 2 hours
- 6) Alcohol concentration over .04 while in commercial vehicle
- 7) Body contains any amount of controlled substance or its metabolite listed in Schedule I or II (other than marijuana)

CENTRAL NERVOUS SYSTEM DEPRESSANTS



Alcohol Barbiturates GHB

Anti-anxiety Tranquilizers
Anti-Depressants
Paxil



Many Others



CENTRAL NERVOUS SYSTEM DEPRESSANTS

- HGN and VGN present
- Eyelids droopy
- Eyes bloodshot and watery
- Drowsiness
- Thick, slurred speech
- Uncoordinated
- Fumbling
- Slow, sluggish reactions



CENTRAL NERVOUS SYSTEM STIMULANTS



Cocaine
Ritalin
Amphetamines
Khat



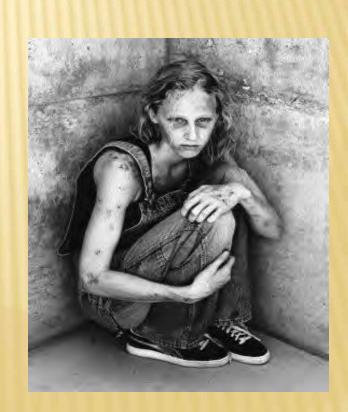


Methamphetamine Adderall



CENTRAL NERVOUS SYSTEM STIMULANTS

- Divided attention impairment
- Starts test too soon
- Accelerated internal clock
- Completes test too quickly
- Rapid and jerky movements
- Talkativeness
- Body tremors
- Exaggerated reflexes



CENTRAL NERVOUS SYSTEM STIMULANTS

- Restlessness
- Anxiety
- Euphoria
- Excitation
- Bruxism
- Loss of appetite
- Pupils dilated



HALLUCINOGENS



Peyote

Psilocybin

LSD

MDMA (Ecstasy)

Bufotenine

'Plant Food'/'Bath Salts'

Salvia Divinorum

NBOMe







HALLUCINOGENS

- Uncoordinated
- Severe divided attention impairment
- Poor perception of time and distance
- Poor balance
- Distorted internal clock
- Disoriented
- Nausea



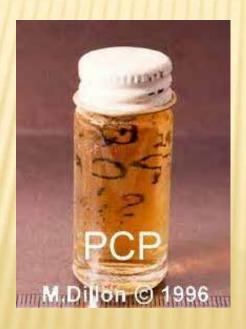
HALLUCINOGENS

- Dazed appearance
- Body tremors
- Perspiring
- Paranoia
- Difficulty with speech
- Piloerection
- Statements suggesting hallucinations



DISSOCIATIVE ANESTHETICS

- PCP (Phencyclidine) and its analogs
- Ketamine
- Dextromethorphan
- Ketaject
- Vetalar
- Xyrem







DISSOCIATIVE ANESTHETICS

- HGN and VGN
- Blank stare
- Loss of memory
- Perspiring heavily
- Warm to touch
- Cyclic behavior
- Incomplete, slurred verbal responses



DISSOCIATIVE ANESTHETICS

- Cyclic behavior
- Agitated
- Rigid muscle tone/'Moon Walking'
- Disoriented
- Nonresponsive
- Chemical odor
- Slowed internal clock





NARCOTIC ANALGESICS



Heroin Oxycontin Morphine Codeine Vicodin Demerol Methadone Darvon Buprenorphine Suboxone



14% of U.S. residents report nonmedical use of Rx pain relievers

U.S. consumes 80% of opioids worldwide

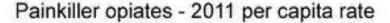


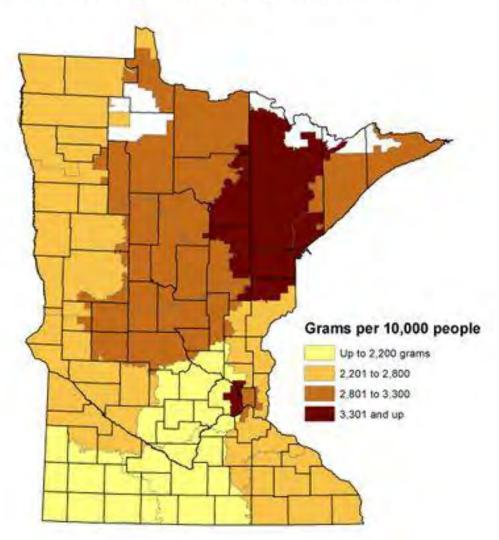
ONDCP

"From 1997 to 2007, the milligram-perperson use of prescription opioids in the U.S. increased from 74 milligrams to 369 milligrams, an increase of 402%."



Prescription painkillers sold in Minnesota - 2011





SOURCE: Automation of Reports and Consolidated Orders System (ARCOS), U.S. Drug Enforcement Administration, 2012. Prescription opiate analgesics (painkillers) include: code ine, morphine, fentanyl (brand names: Sublimaze, Actiq, etc.), hydrocodone (brand names: Vicodin, Lortab), hydromorphone (brand names: Dilaudid, Palladone), meperidine, pethidine (brand name: Demerol), and oxycodone (brand names: OxyContin, Percodan, Percocet).

NARCOTIC ANALGESICS



"Track marks" "On the nod" Slowed reflexes Facial itching Dry mouth Euphoria Flaccid muscle tone

Low, slow, raspy speech Pupils visibly and obviously constricted

NARCOTIC ANALGESICS

Pupil size constricted
Eyelids will be droopy
Divided attention impairment
Poor coordination and balance
Slowed internal clock



INHALANTS



Gasoline
Glues
Paint (Toluene)
Hair Spray
Anesthetic Gases





INHALANTS

- HGN and VGN
- Odor of the inhaled substance
- Dizziness, numbness
- Traces of substance around the face and nose
- Bloodshot, watery eyes
- Distorted perception of time and distance
- Light headedness



INHALANTS

- Flushed face, possible sweating
- Intense headaches
- Slow, thick, slurred speech
- Nausea
- Non communicative
- Floating sensation









Marijuana

Hashish

Hashish Oil

Marinol

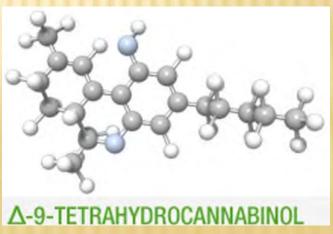
Synthetic Cannabinoids





- Derived primarily from various species of Cannabis plants
- Primary psychoactive ingredient is Delta-9 Tetrahydrocannabinol (THC)





- Effects depend on the strength of the THC in the dose consumed
 - THC concentrations decades ago, peaked at relatively low levels (3-6 %)
 - Current levels are being reported at more than 30%

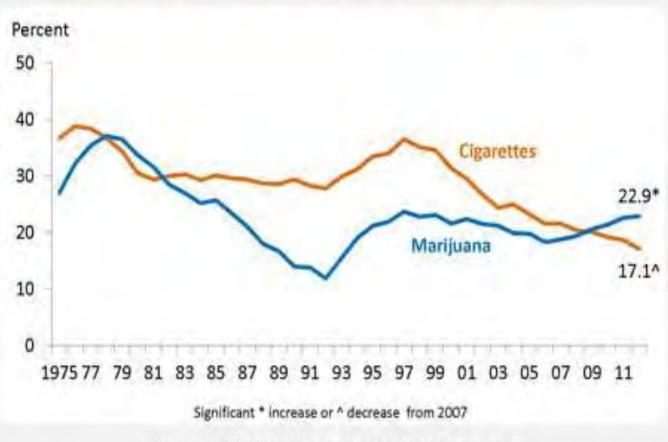
Corrupts neurochemical endocannabinoids that play key roles in memory formation, learning, decision-making...

...and is Addictive.



More kids smoke marijuana than cigarettes

Past Month Cigarette and Marijuana Use among 12th Graders, 1975 to 2012



22.9%

17.1%

Source: University of Michigan, 2012 Monitoring the Future Study

MARIJUANA

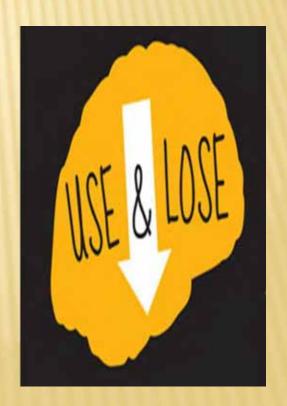


Over 29 million Americans used marijuana in 2010

NIDA

People who used marijuana heavily through their teens and into adulthood showed a significant drop in I.Q. (an average of 8 points) between the ages of 13 and 38

Those who never used showed no drop in IQ



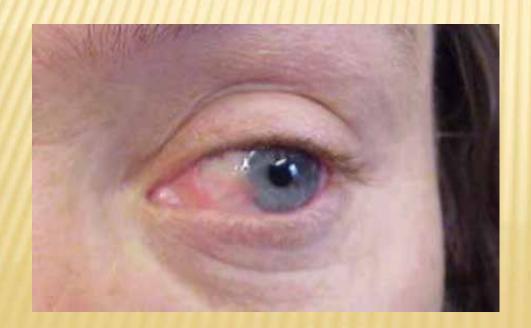
FACT

1 joint reduces driving skills by 41% (2 joints = 63%)



-NHTSA

Odor of marijuana
Impaired perception of time and distance
Marked reddening of whites of eyes
Problems with divided attention tasks



Body tremors
Disorientation
Impairs attention
Relaxed inhibitions



Johnny smoked a rock of crack.

And almost had a heart attack!



Billy smoked a bunch of pot.

A little hungry is all he got!



CANNABIS APPLICATIONS

- Lowers intraocular pressure
- Suppresses nausea
- Helps inhibit seizures
- Appetite enhancer
- A muscle relaxant
- A tumor growth retardant



MARINOL APPLICATIONS

- Legitimate medicinal use as an anti-vomiting agent, commonly associated with cancer chemotherapy
- Other uses include treatment of glaucoma or as an appetite enhancer for anorexia disorders



SYNTHETIC CANNABINOID PRODUCTS



JWH-018 1-PENTYL-3-(1-NAPTHTOYL)INDOLE

Created in 1995 for experimental purposes in animal and cell cultures, not humans, by Dr. John Huffman, PhD at Clemson University

JWH-018 1-PENTYL-3-(1-NAPTHTOYL)INDOLE

- Not structurally related to THC, but has longer duration of action.
- Sold commercially since 2002 as "SPICE" and as it's parent compound



SYNTHETIC CANNABINOID PRODUCTS

Typically include:

- Olive colored herbs
- Combination of herbs
- Plant materials

All enhanced with a THC synthetic analog

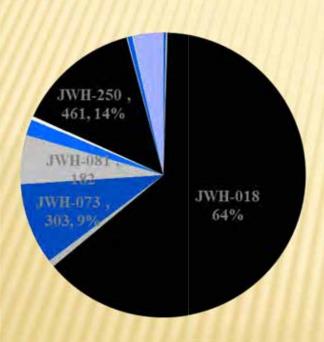
When smoked, synthetic cannabinoid products mimic the hallucinogenic effects of marijuana

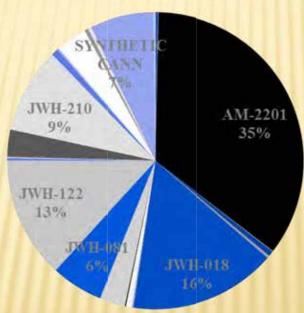
CANNABINOID VARIETIES IDENTIFIED IN U.S. NFLIS TOXICOLOGY LABS

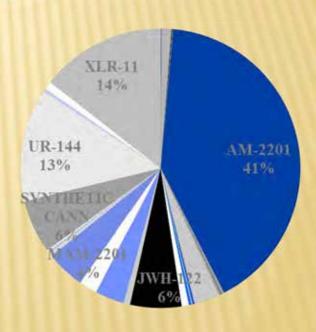
19 variations reported in 2010

44 variations reported in 2011

55 variations reported in 2012







SYNTHETIC CANNABINOID EFFECTS

- Very similar to cannabis but is considerably more potent than similar amounts of cannabis.
- Users may experience far more intense effects compared to smoking cannabis
- Has been shown to cause profound changes in CB1 receptor density, causing desensitization to its effects more rapidly than related cannabinoids

SYNTHETIC CANNABINOID EFFECTS

- Panic attacks
- Agitation
- Tachycardia (range of 110 to 150 BPM)
- Elevated blood pressure
- Anxiety
- > Pallor
- Numbness and tingling
- Seizures
- Convulsions



SYNTHETIC CANNABINOID EFFECTS

- Visual changes
- > Color enhancement
- Uncontrollable laughter
- Euphoria
- Talkativeness
- Sexual stimulation

- Time impairment
- > Sedation
- > Sleep aid
- Analgesia
- Anti-depressant

Who Qualifies?

- 1. Cancer, with severe or chronic pain, nausea, or vomiting
- 2. Glaucoma
- 3. HIV/AIDS
- 4. Tourette's Syndrome
- 5. Amyotrophic Lateral Sclerosis (ALS)
- 6. Seizures, including those characteristic of epilepsy
- 7. Severe and persistent muscle spasms, including M.S.
- 8. Crohn's Disease
- 9. Terminal Illness with life-expectancy < 1 year, with severe or chronic pain, or nausea/vomiting, or cachexia

Chronic pain on its own is presently NOT a qualifying condition

NO smokeable or plant-form is permitted

Only liquids and oils in capsule, tincture or vaporized form are allowed.

Program promotes continuous learning

Patient Registry requires reporting on effectiveness, side effects, etc.

Patient registration and reporting process through MDH

Upon certification, patients must register with the State of Minnesota and submit an application fee before visiting a patient center. System will enable medical cannabis providers, MDH and health professionals to actively monitor usage and impacts

Patients must be Minnesota residents

No reciprocity with other state-based medical cannabis programs.

Only two manufacturers are permitted

Each manufacturer will have four patient centers operational by July 1, 2016

The cost of medical cannabis is all out-of-pocket

Insurance currently does not cover a patient's visit to a patient center and/or the medicine itself.

MDH will oversee an extensive testing program

Testing will monitor for medicine content, contamination, metals, pesticides, microbials, residual solvents, and consistency and stability.

Packaging parameters are well-defined

All medicine packaging must be: plain (minimize appeal to children), tamper evident, child-resistant, and include medicine names that reflect medical cannabis' nature (no crazy names).

Labels must include: chemical composition, dosage/directions, date of manufacture/batch number, patient name/DOB/address, and caregiver name (if any).

Prohibitions:

Nothing in the sections of Minnesota's law permits any person to engage in and does not prevent the imposition of any civil, criminal, or other penalties for...

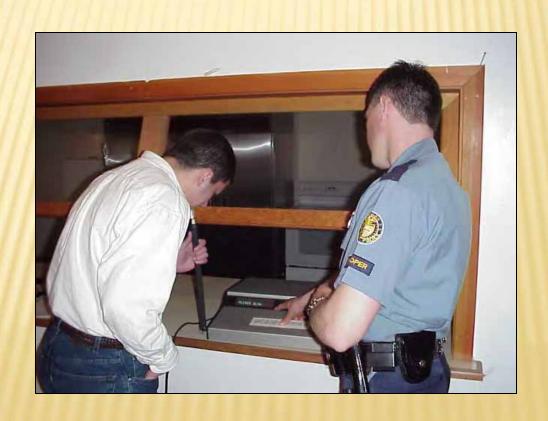
- 1. Undertaking any task under the influence that would constitute negligence or professional malpractice
- 2. Possessing or engaging in the use of medical cannabis:
 - (i) On a school bus or van
 - (ii) On grounds of any preschool, primary or secondary school
 - (iii) In any correctional facility
 - (iv) On the grounds of any child care facility or home daycare

Prohibitions:

- 3. Vaporizing medical cannabis
 - (i) On any form of public transportation
 - (ii) Where vapor would be inhaled by a non-patient minor/child
- (iii) In any public place, including any indoor or outdoor area used by or open to the general public or a place of employment
- 4. Operating, navigating, or being in actual physical control of any motor vehicle, aircraft, train, or motorboat, or working on transportation property, equipment, or facilities while under the influence of medical cannabis.

Step 1: Alcohol Concentration

DRE or Arresting Officer determines if alcohol is involved



Step 2: Interview of Arresting Officer

- DRE determines the reason for the arrest
- Driving observed?
- SFST results?
- Statements made?
- Other relevant matters



Step 3: Preliminary Evaluation

- "Fork-in-the-Road" for the DRE
- DRE determines if there is sufficient reason to suspect drug impairment

Determines if impairment may be medically

related



Step 4: Eye Examinations

DRE tests for:

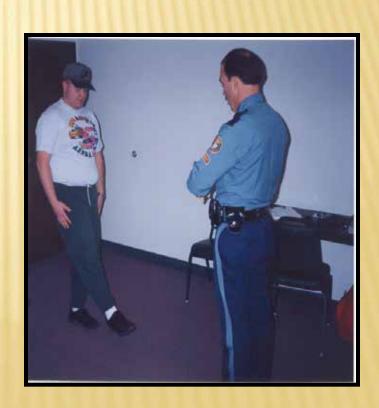
- Horizontal Gaze Nystagmus (HGN)
- Vertical Nystagmus (VGN)
- Lack of Convergence



Step 5: Divided Attention Tests

DRE administers divided attention tests:

- Modified Romberg Balance
- Walk and Turn
- One-Leg Stand
- Finger-To-Nose



Step 6: Vital Signs Examinations

DRE conducts three vital signs examinations

- Pulse rate (3 times)
- Blood pressure
- Body temperature



Step 7: Dark Room Examinations

DRE examines suspect's pupils

- Pupilometer used to estimate the suspect's pupil sizes in three different light levels.
- Includes examination of nasal and oral cavities.



Step 8: Muscle Tone

DRE examines arrestee's arms for muscle tone; flaccid, rigid, or normal



Step 9: Examination for Injection Sites

DRE examines for injection sites



Frequently used areas include:
Arms Neck Ankles

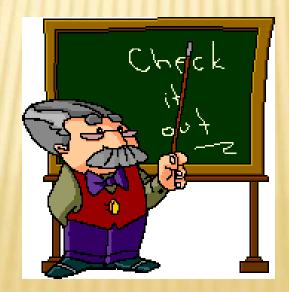
Step 10: Statements and Interview

- DRE conducts a structured interview
- Miranda warnings given if not previously done
- Suspect questioned about drug use based upon the results of the evaluation
- DRE records admissions



Step 11: Opinion of the DRE

- DRE forms an opinion as to the drug influence and the drug category(s)
- DRE makes an "informed opinion" based upon totality of evaluation and evidence
- DRE Symptomology Matrix used to form final opinion



Step 12: Toxicology

Implied Consent Advisory invoked

A urine or blood sample is requested for analysis



QUESTIONS?

THANK YOU.

Lieutenant Don Marose Minnesota State Patrol don.marose@state.mn.us

Trooper Isaiah Godding Minnesota State Patrol isaiah.godding@state.mn.us

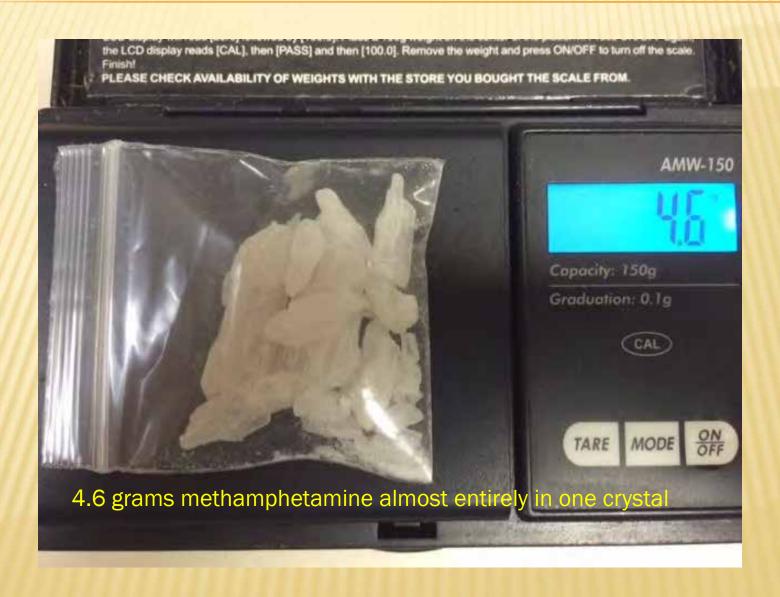
- Methamphetamine: Increased in popularity, purity up, price is down.
- Direct correlation with legalized marijuana in the US.

86 grams Methamphetamine



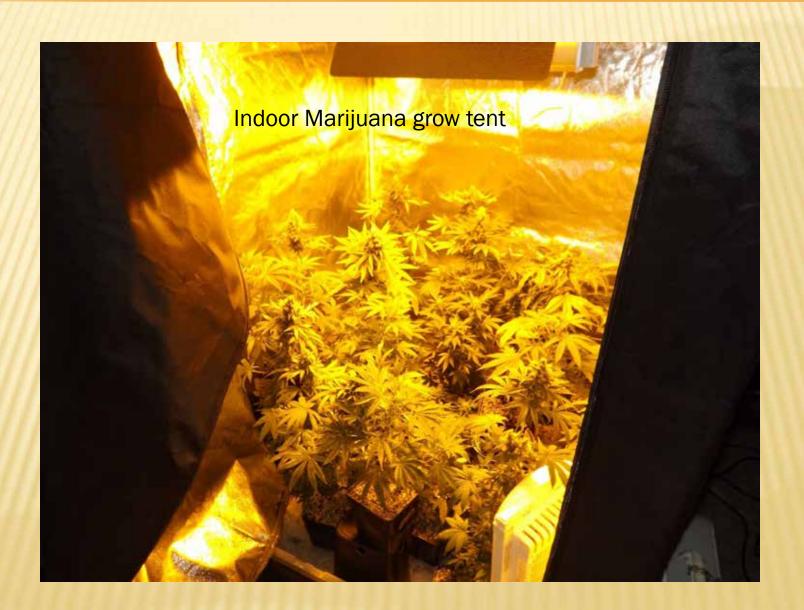
















Local marijuana seizure



INVESTIGATION OF DRUGS IN THE URINE OF DRIVERS STOPPED FOR ALCOHOL DWI

Lisa LaGoo BCA Toxicology Section Intern



RESEARCH METHODS

- Urine samples from 235 DWI cases
 - + January through March 2007
 - + All samples were submitted for alcohol screening only

DRUGS SCREENED

- + THC
- + Cocaine
- + Opiates
- + Amphetamines
- + Phencyclidine
- + Barbiturates
- + Benzodiazepines
- + Methadone
- + Propoxyphene

- + Basic drugs
- + Over 500 compounds



43% of Drivers Found to be Positive for Other Substances

Schedule I - 20%

Schedule II - 14%

Schedule III - 0%

Schedule IV - 1%

Schedule V - 0%

Unscheduled - 30%

SCHEDULE I

× THC

- + 46 samples
- + 20% positive



SCHEDULE II

14% of the cases - 33% of the positive results

- Methamphetamine (3% 8%)
- Opiates (6% 13%)
- **Cocaine** (4% 9%)
- Propoxyphene, Amphetamine (Each 1% 2%)

SCHEDULE IV

1% of cases - 3% of positive results

- Two benzodiazepines (of 146)
- One case of Zolpidem (Ambien)

UNSCHEDULED DRUGS

30% of cases - 70% of positive results

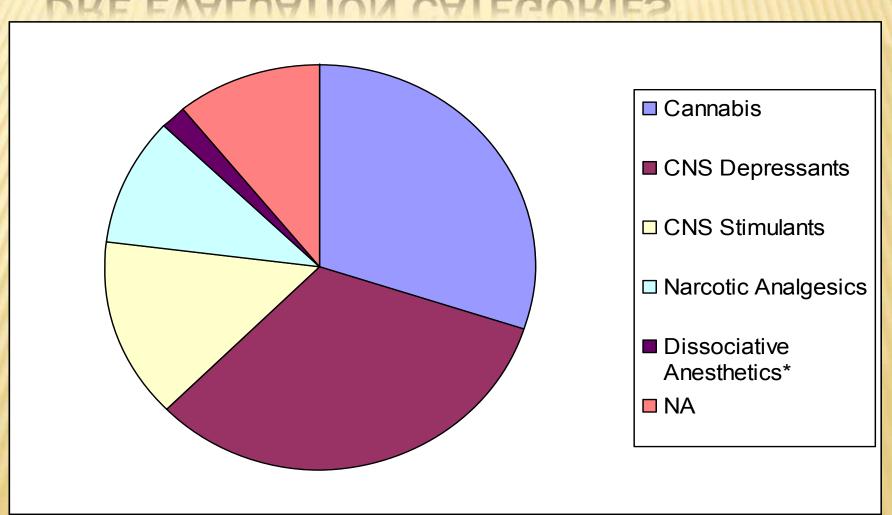
- Diphenhydramine (6% 13%)
- Doxylamine (3% 6%)
- Trazodone, Chlorpheniramine, Venlafaxine (Each 2% - 4%)
- Tramadol, Orphenadrine, Dextromethorphan, Fluoxetine, Diltiazem

(Each 1% - 3%)

UNSCHEDULED COMPOUNDS

• Pseudoephedrine, Amitryptiline, Propranolol (Each 1% - 2%)

DRE EVALUATION CATEGORIES



POLY-PHARMACY

One drug

72% of positive screens

Two drugs

20% of positive screens

Three drugs

7% of positive screens

Four drugs

1% of positive screens



CONCLUSIONS

Identified drugs in 43% of 235 DWI cases tested 70% Unscheduled

Most common drugs found

THC - 20%

Diphenhydramine - 6%

Hydrocodone and other opiates – 6%

Citalopram - 4%

Cocaine - 4%

Methamphetamine - 3%

Doxylamine - 3%



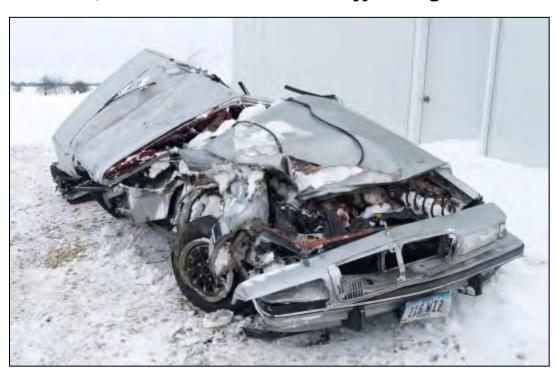
Break: be back at 10:00





West Central Minnesota Crash Facts

Lt. Chuck Backes, Minnesota State Patrol and Tom Swenson, MnDOT District 4 traffic engineer





Crash Photos DEAD or ALIVE

























































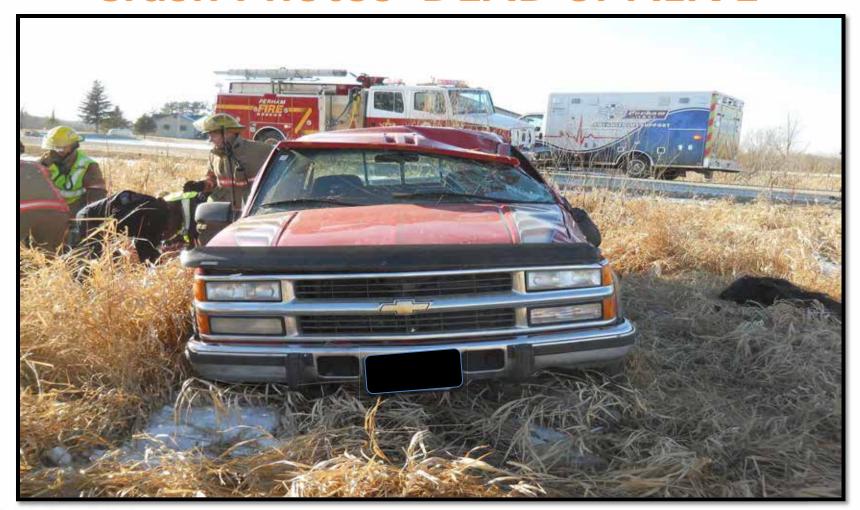




How Many Were Fatal Crashes?

- a) 6
- b) 4
- c) 2
- d) 1
- e) 0













TOWARD ZERO DEATHS

Because your life counts

West Central Minnesota Regional Crash Data

May 12, 2015

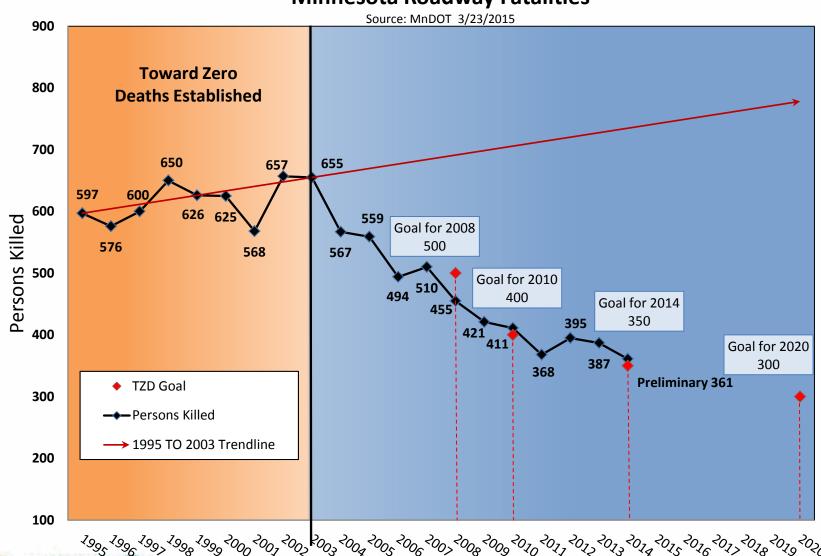








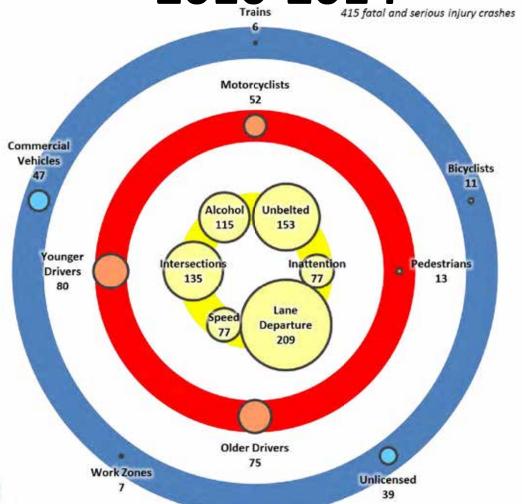
Minnesota Roadway Fatalities







West Central Region Focus Areas 2010-2014

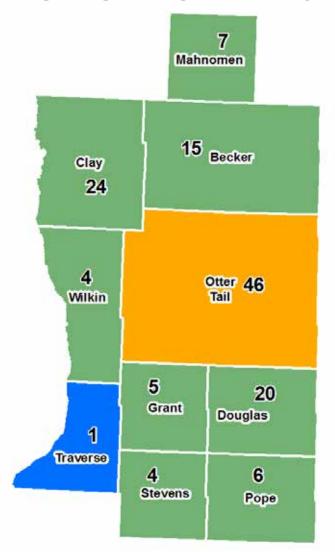








2010-2014 Fatalities



Region Totals	
2010	35
2011	21
2012	33
2013	23
2014*	20









2010-2014 Serious Injuries



Region Totals	
2010	69
2011	78
2012	94
2013	74
2014*	62

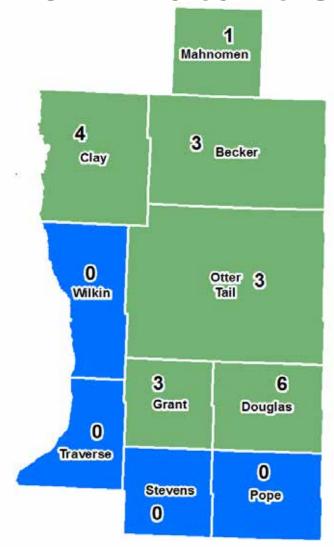








2014 Fatalities*



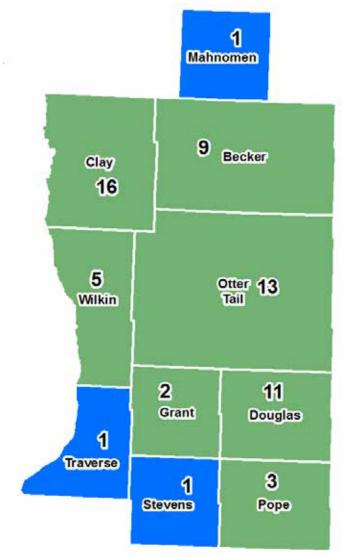








2014 Serious Injuries*



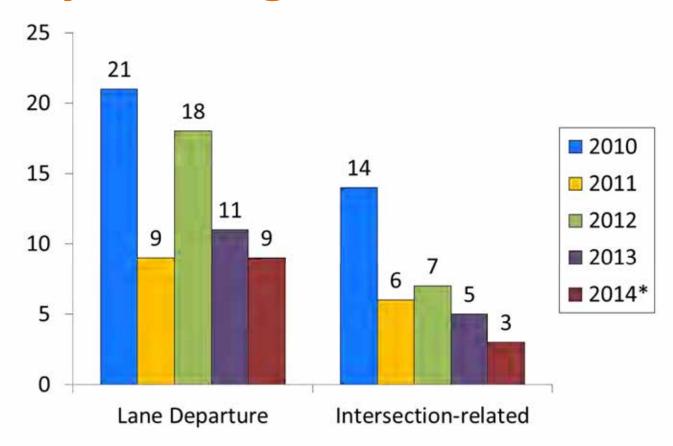








5-year Progress in Fatalities

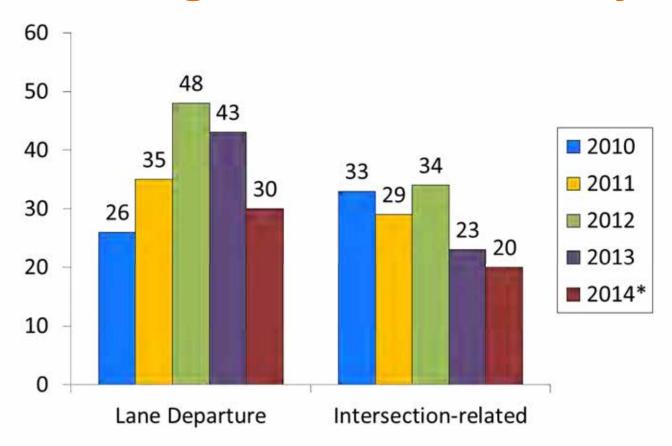








5-year Progress in Serious Injuries











Case Study

At your tables there are maps

- Vehicle 1 west bound on 26 and vehicle 2 was north bound on Hwy 9
- Daytime
- Wet roads
- 26 has a stop at 9

























































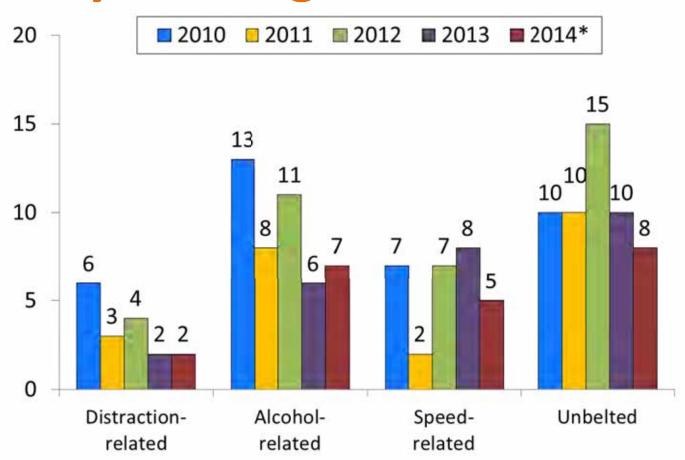
Possible Mitigation Strategies

 What options exist to respond to this type of crash?





5-year Progress in Fatalities



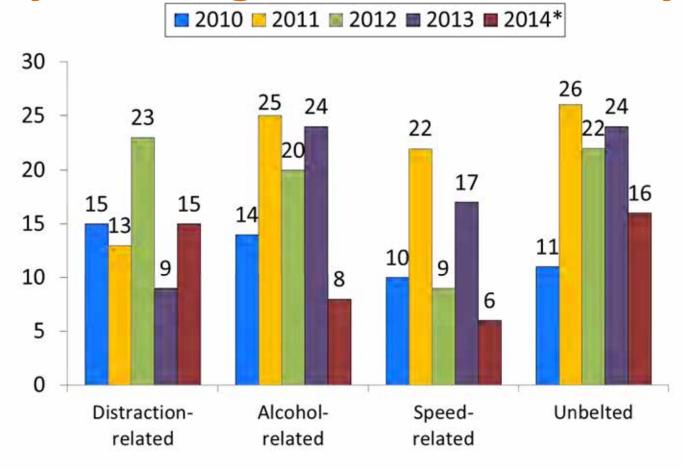








5-year Progress in Serious Injuries











Key Findings for 2014*

West Central Region

- Males 20-24 are overrepresented in serious injury and fatal crashes, followed most closely by males 15-19 and 45-49.
- 1.7 fatalities per month
- 5.2 serious injuries per month
- Alcohol-, speed- and unbelted-related crashes are decreasing.





Key Findings for 2014*

- Successes!
 - 4 Counties with ZERO fatalities
 - 3 Counties with ONE serious injury
- Challenges
 - Distraction remains a challenge









Resources

- Minnesota Toward Zero Deaths
 - http://www.MinnesotaTZD.org
- Strategic Highway Safety Plan
 - <u>http://www.dot.state.mn.us/TrafficEng/Safety/SHSP</u>
- Minnesota Crash Facts
 - https://dps.mn.gov/Divisions/OTS





Senior Driver Panel

Susie Palmer, OTS
John McKagan, DVS
Gene Ladoucer, AAA
Tom Swenson,
MnDOT



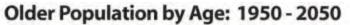
Older Drivers

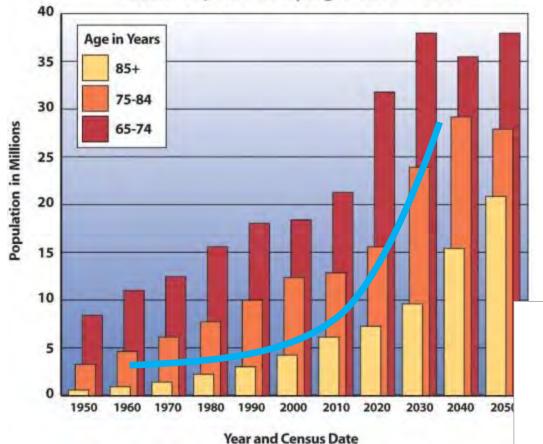
Tools to address the challenges of staying mobile while aging



Gene LaDoucer AAA-The Auto Club Group







'The only thing worse than getting older is not getting older!'

'Getting old stinks...
but it beats the alternative.'

65+ ≤ 64 √ 2025

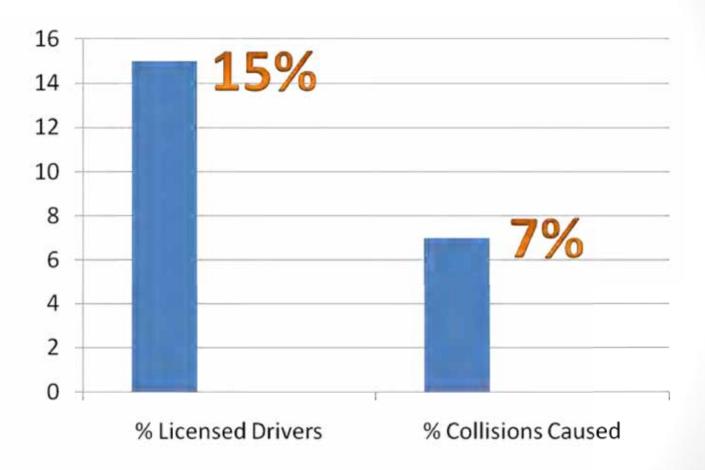


Strengths

- Experience
 - Been there, done that (they anticipate risks)
- Good habits
 - Seat belt use high
 - Technology use low
 - Speed low
 - Impairment low (except prescription meds)
- Self-Regulate
 - Limit driving at night
 - Avoid driving in bad weather
 - Eliminate left turns/backing; avoid busy intersections/highways



Underrepresented in At-Fault Crashes



Source: RAND Corporation



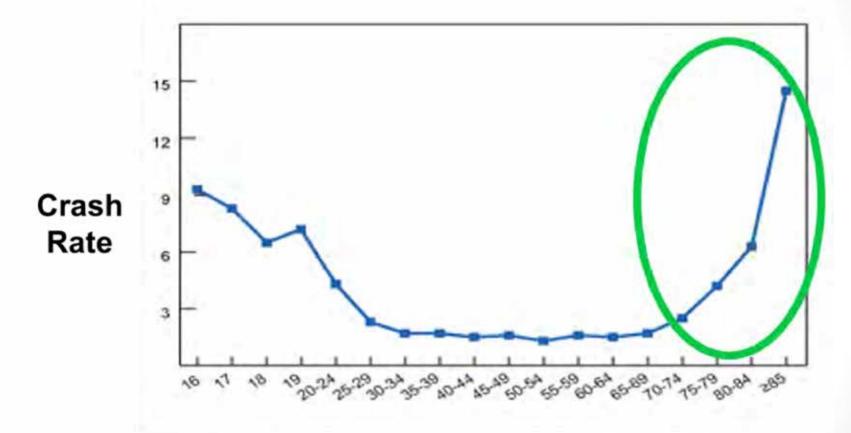
Weaknesses

- Visual decline peripheral, contrast, glare, moving objects
- Cognitive decline short/long term memory, reaction time
- Physical decline strength, flexibility, arthritis
- Increased fragility

All occur in different ways and at different times for each person.



High Fatality Rates



Source: IIHS Fatality Facts, Older People

Age



Lifelong Mobility

- Seniors have a strong desire to keep their cars and independence.
- Loss of mobility doubles the risk of depression.
- AAA goal = Keep seniors driving as long as safely possible.



SeniorDriving.AAA.com

- Website contains tips and tools to:
 - Evaluate driving abilities
 - Understand mind and body changes
 - Improve driving skills
 - Maintain mobility and independence
 - Make transition from driver to passenger, if needed





CHANGE TEXT SIZE # A

ROADWISE RX



Roadwise Rx is a free online tool that provides confidential, individualized feedback about users medication side effects and interactions, highlighting how these effects may impact safe driving abilities.

Loam more >

FIND YOUR PERFECT FIT



Attend a free CarFit clinic, where trained technicians and an occupational therapist can help you find your ideal vehicle "fit" for maximum comfort and safety. It takes only about 20 minutes. Find out if CarFit is available near you.

Leam more »

TAKE A REFRESHER COURSE



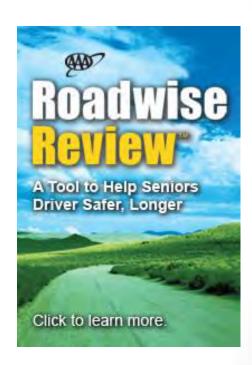
Increase your confidence and awareness behind the wheel with AAA's Driver Improvement Course. Contact your local AAA club to see if classroom or soline courses are offered in your area.

Loors more +



Roadwise Review (online and DVD)

- Interactive Driving Evaluation
 - ✓ manual abilities
 - strength, flexibility, reactions
 - √ visual abilities
 - useful field of view
 - high and low contrast visual acuity
 - visualization of missing information
 - visual search
 - √ cognitive abilities
 - working memory
 - manage multiple distractions/stimuli

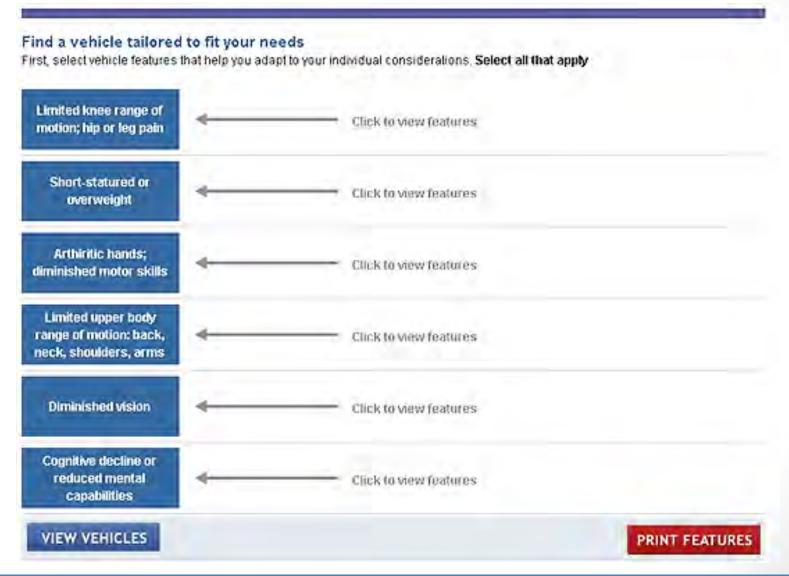




Smart Features (online and print)

- •Factors for evaluating a current or future vehicle:
 - Safety features, such as seat belts and the positions and types of airbags
 - Ergonomics, or design features, that reduce operator fatigue and discomfort, such as adjustable pedals and seats
 - Comfort, such as ease of entry and exit, leg room and size of control buttons
 - ◆ Value, which incorporates the total cost of ownership including price, operating and maintenance costs, as well as reliability, fuel economy and resale value







View the makes and models that are a best fit for your needs

Vehicles listed include the following features you selected:

Limited Leg Strength or Range of Motion; Hip or Leg Pain - Comfortable seats, Adjustable foot pedals

Short-Statured or Overweight - Tilt and telescoping steering wheel

Arthiritic Hands; Diminished Motor Skills - Thick steering wheel, Keyless ignition

Limited Upper Body Range of Motion: Back, Neck, Shoulders, Arms - Large, wide-angle mirrors

Diminished Vision - Larger audio and climate controls

Cognitive Decline or Reduced Mental Capabilities - High-contrast instrument panel

Make and Model	•	MSRP	Fuel Economy (MPG)
Chrysler 300		\$29,595 - \$49,625	18CTY / 27HWY
Chrysler Town & Country		\$30,930 - \$40,585	17CTY / 25HWY
Dodge Charger		\$27,590 - \$47,950	18CTY / 27HWY
Nissan Pathfinder		\$30,115 - \$44,795	14CTY / 20HWY
Volkswagen Routan		\$27,840 - \$45,100	17CTY / 25HWY



CarFit (a community traffic safety program)

- Program developed by AAA, AARP and the American Occupational Therapy Association (AOTA).
- Quick, yet comprehensive review of vehicle 'fit'
- Improves driver safety:
 - Proper use/adjustment of safety features
 - Improved comfort
 - Better control & increased confidence
 - Promotes conversations between older drivers and their families



How things have changed

- Adjustable shoulder & lap belt
- Push-button ignition
- 8-way adjustable electric seats
- Rain-sensing wipers
- Electric, heated side view mirrors
- Adjustable brake, accelerator pedals
- Tilt, telescoping steering wheels
- Auto-on headlights
- Headlight dimmer on turn signal
- Bluetooth, Wi-Fi, GPS, ABS, ESC etc.



Many can lead to more comfortable and safe driving, if <u>understood</u> and <u>used properly</u>.



CarFit (a community traffic safety program)

Trained technicians use a 12-point checklist to evaluate:

- Proper seat belt use/positioning
- Distance between breastbone (or chest) and the air bag
- •Line of sight above steering wheel
- Proper positioning of head restraint
- •Neck mobility, mirror settings for checking vehicle's blind spots
- •Ability/difficulty using controls (ignition, signals, headlights etc.)
- •Final step is a conversation with an Occupational Therapist (OT)





CarFit Requirements

- Committed volunteers
 - Anyone can volunteer; most come from health or traffic safety
- Training
 - Technicians: 4-hours + participate in one event
 - Coordinators can train technicians
 - Coordinators: 4-hours + plan/coordinate one event
 - Two CarFit instructors serving the region
- Occupational Therapist
 - OTs must also receive training
 - Online module available
- Basic support materials
 - Printed information materials, clipboards, rulers etc.
 - Signs, cones, tables, chairs etc.
 - 'Gadget' kit



CarFit Challenges

- Committed volunteers
 - Sound familiar?
- Older drivers skeptical of purpose
 - Requires education before events
 - AAA resources mentioned earlier
- Suitable location/weather
 - Limited use, familiar parking lot
 - Senior centers/retirement communities
 - Churches
 - Hospitals/health care centers



Thank you!

Contact information:
Gene LaDoucer
701-893-3759
eladoucer@aaand.com



DVS is made aware of At Risk Drivers by:

- Medical community
 - Driving Assessments
- Family
- Neighbors
- Law Enforcement
- Courts



What you should know:

- Doctors are protected under statute 171.131 from liability, civil or criminal if they report a person that isn't physically qualified to drive.
- Family members are protected under the Department of Public Safety's data privacy act. DVS will not give out their information to the driver unless ordered by the courts.
- Anyone else DVS has to give out the information to the driver.

Once DVS receives information, action taken can be:

- Cancel privileges
 - Only from doctor

- Set up for an evaluation interview.
 - Usually seen within 2-3 weeks

Evaluation Interview

Meeting with a Driver Evaluator:

- Involves a review of medical history
- A review of the driver's driving record
- Reviews reported information with the driver
- Performs a short screening of driving laws
- May discuss with family, if available

Decision:

- Evaluator may require:
 - Vision statement
 - Physician statement
 - Knowledge test
 - Road test

Driver is given 30 days to comply

Vision Requirements

To Qualify For License:

 Visual acuity of 20/40 or better, with either one usable eye or with both eyes, with or without corrective lenses

 Visual field of 105 degrees or greater in the horizontal diameter with either one usable eye or with both eyes

Vision Restrictions

When Vision Acuity Is:

- 20/50 = Maximum speed 55 mph
- 20/60 = Maximum speed 50 mph
- 20/70 = Maximum speed 45 mph
 - = No freeway, expressway or limited access highway with a speed limit of more than 45 mph

Other Restrictions

In Addition To Restricted Speeds:

- Certain roads
- Area limitations
- Daylight only
- Additional mirrors



Physician Statement

Is driver medically qualified to drive?

Possible Restrictions:

- Daylight Only
- No Freeways
- Distance allowed
- Miles per hour
- Certain roads
- Adaptive equipment



Vision & Physician Statements

 When required, the vision statement and/or physician's statement must be submitted before Road Test is administered.

Knowledge Test

Purpose:

 To evaluate a driver's knowledge and understanding of Minnesota traffic laws and road signs.

Road Test

Driver is evaluated on:

- Obeying rules of the road
- Ability to drive a motor vehicle safely under normal traffic conditions
- Awareness of risks and proper reactions
- Ability to use good observation skills

Equipment Demonstration

Locate and demonstrate the operation of:

- Seat adjustment
- Seat belt
- Emergency (4-Way) flashers
- Windshield wipers
- Headlights Low beam and High beam
- Parking (Emergency) Brake
- Defroster & Fan controls
- Horn
- Mirror Adjustment
- Proof of Vehicle Insurance



Road Test

Process:

- Test attempts & fees
- Driver Training Requirement
- Area Special Test
- Cancellation
- Provide suggestions for alternate modes of transportation



Senior Driver Panel

Tom Swenson **MnDOT**

We all have a stake in $A \oplus B$



















Goals

- ▶ To eliminate traffic deaths on Minnesota roadways => TZD
- Provide a transportation system that meets the needs of all users













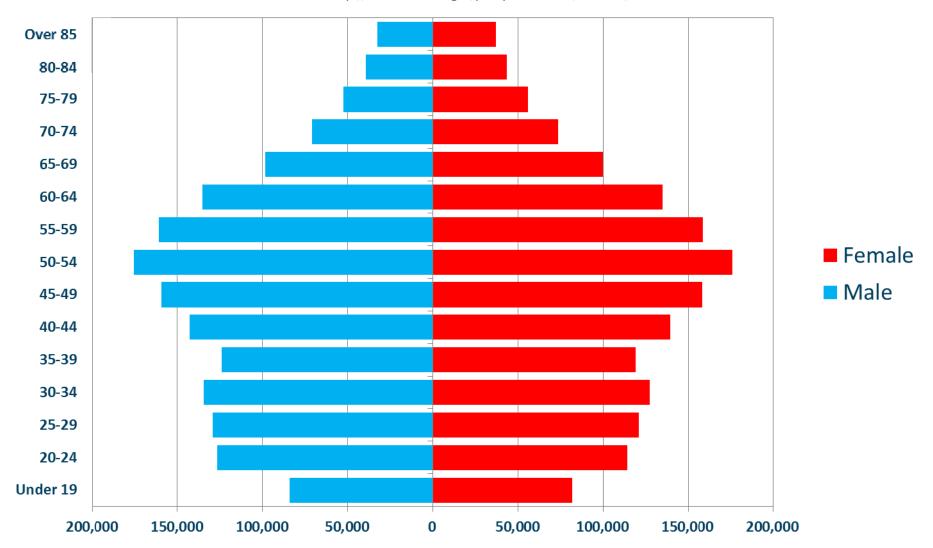






Minnesota Licensed Drivers by Age and Sex, 2011

SOURCE: http://www.fhwa.dot.gov/policyinformation/statistics/2011





















What is good for older drivers is generally good for all drivers.



















Tools

- Improvements to Highway Infrastructure (Traditional)
 - Signs
 - Signals
 - Pavement Markings
 - Intersection & Roadway Design
- Vehicle Advancements (Rapid)
- Cultural Change (Slow)



















Search for Better Materials

- Research
- Manufactures continually working on new products
- MnDOT test before use
- Provision use on limited number projects
- ▶ E.g. Pavement Marking Test Deck (NTPEP)
 - July 2013
 - 3 year test
 - 85 products
 - 1288 lines (427 wet recoverable)
 - Bituminous and Concrete





















Increased Visibility

- Larger Signs
- Color and Contrast
- Open Lettering Study in 2014



























Signal improvements

- ▶ LED signals
- Background shields
- Left turn signal phases
- All-red clearance intervals
- Multiple Signal Heads











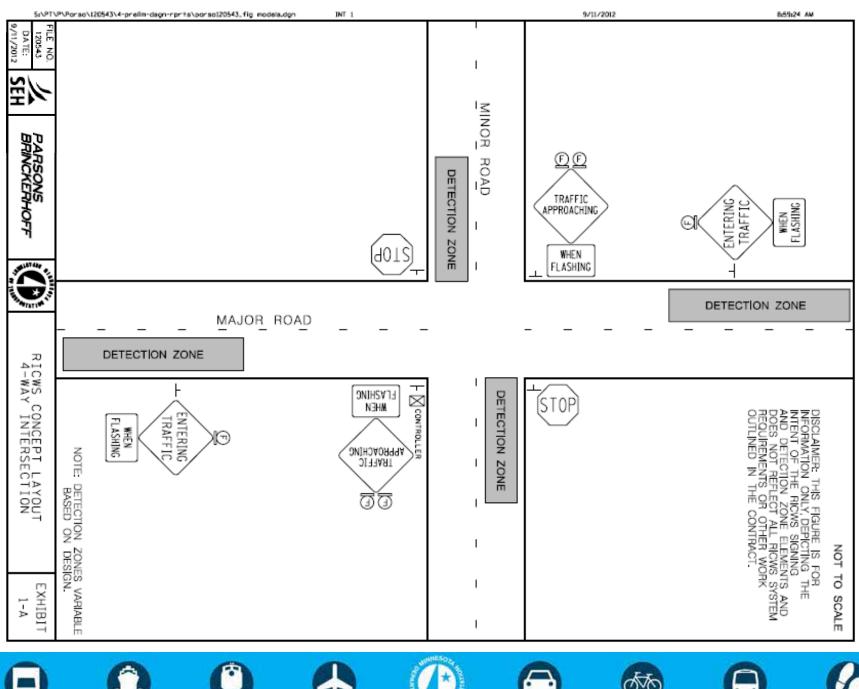












































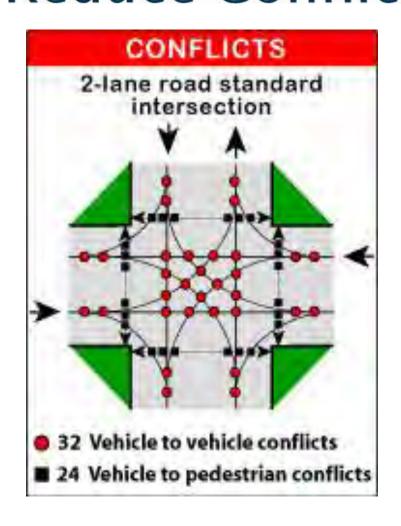


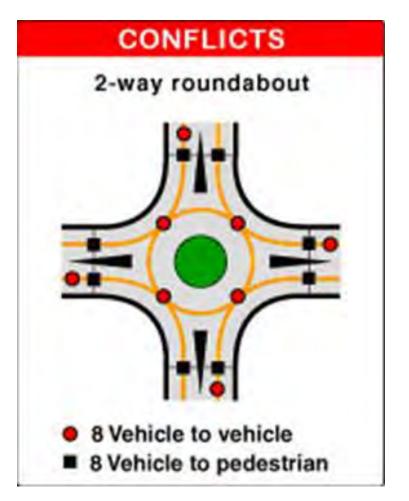






Reduce Conflict Points















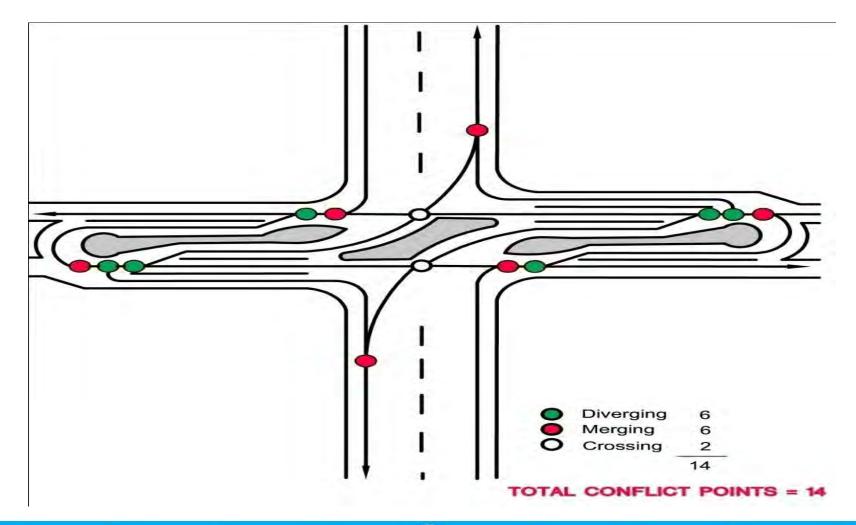








Reduced Conflict Intersection





















Getting the Word Out

- Older Driver Workshops
- Table top demonstrations
- State Highway Map
- State Fair Outreach
- Partner Organizations
- Public Project Meetings



















Vehicle Advancements

- Driver Assist Availability
 - Lane departure
 - Blind spot detection
 - Collision avoidance, etc.
 - Vehicle to Vehicle Communication
- Automated Vehicles



Audi A7 Sportback

ept days to



















Self Driving Car



















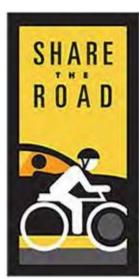


Transportation Alternatives

- Mobility programs
 - For those who don't drive







- For those who don't want to drive.
- http://www.dot.state.mn.us/sharetheroad/index.html



















Useful Resources Related to Older Drivers

Office of Traffic Safety

Minnesota Department of Public Safety



families, and caregivers.

Need help finding assistance with day-to-day things like transportation or meals? The Senior Section of MinnesotaHelp.info will help seniors, their families, and caregivers focus on finding the help they need.



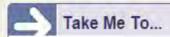
A One Stop Shop for Minnesota Seniors

Start a Search



Popular Search Topics

- Adult Day Services
- Assistive Technology
- Caregiver
- Consumer Directed Community Supports (CDCS)
- Death and Dying
- Environment / Conservation
- Financial Help
- Food Assistance and Other Nutrition
- Grandparents Raising Grandchildren (Kinship Caregivers)
- Help finding the right resource
- Help in Your Home
- Housing
- Legal and Advocacy Services
- Long Term Care Ombudsman
- Medical Centers and Services.
- Medicare and other benefits
- Mental Health Services
- Nursing Homes
- Personal and In Home Safety
- · Prescription drug help
- Senior Centers, Community Programs and Recreation
- Transportation
- Volunteering, Education and Jobs
- Wellness





TECHNICAL ASSISTANCE EXCHANGE

DHS Licensing Information Lookup

DHS Licensing Information Lookup is an online tool Minnesotans can use to search for licensed programs' public information such as: child care, group homes and many other services for children and vulnerable adults. Many ways to search including name, license number or zip code.

MN Dept. of Health - Health Care Facility and Provider Database

This database offers information about Minnesota health care providers, including state registration and licensure status. Search by name county, city or type.

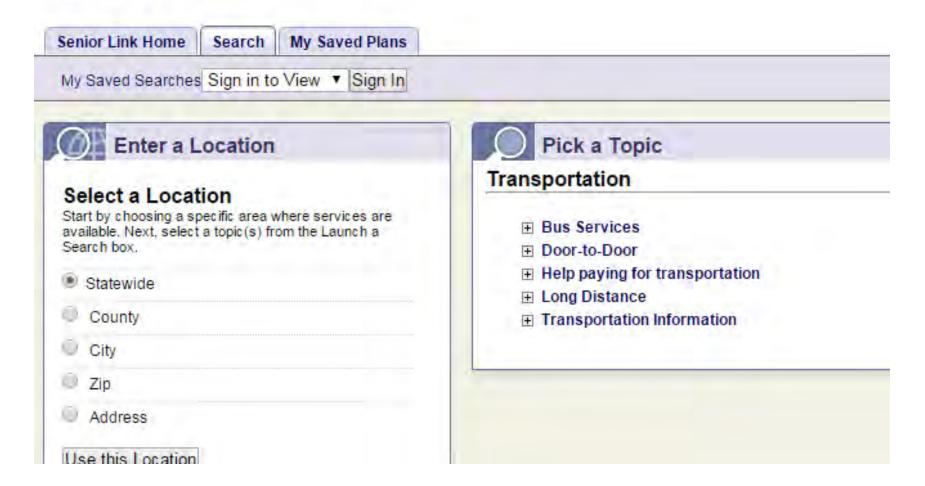
Caregiver Link

Information and services to help you care for an older adult (such as a parent, spouse, other

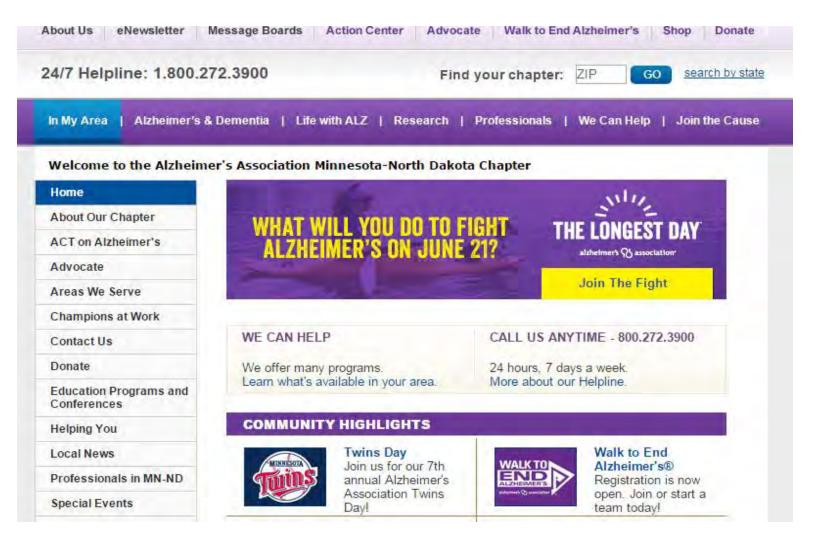
www.seniorlinkageline.com/public/default.aspx?se=senior

or call 1-800-333-2433

Senior Link

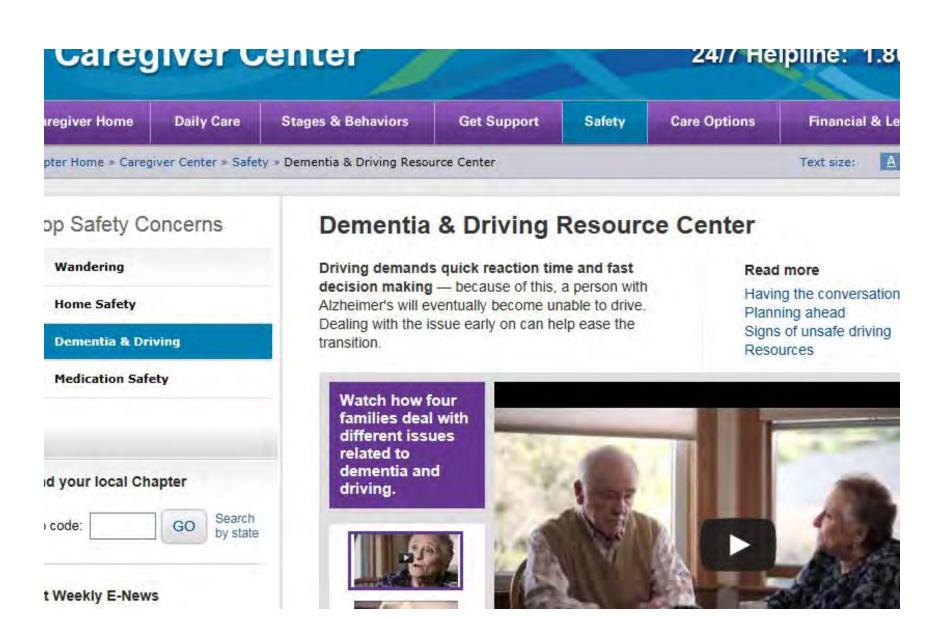


Clicked on "Transportation" in Senior Linkage Line



Www.alz.org/mnnd/ Helpline: 1-800-272-3900

Click Life with ALZ, Then Caregiver Center



http://www.alz.org/care/alzheimers-dementia-and-driving.asp Click Safety, then Dementia & Driving

Family Conversations With Older Drivers

Information to help address sensitive subjects and foster meaningful conversations



Expertise on Aging

The Hartford Center for Mature Market Excellence

Publications

Partnerships

We Need to Talk

Dementia and Driving

Comprehensive Driving Evaluations

Driving Wellness

Supportive Family Conversations









Because driving represents independence and freedom for most older adults, the idea of limiting or giving up driving can be a deeply personal and emotional issue. That's why The Hartford Center for Mature Market Excellence SM, together with the MIT AgeLab, created information to help families address sensitive subjects and foster meaningful family conversations about older driver safety.

For older drivers, limiting driving presents practical problems and can cause strong emotions, from sadness to anger. Family members themselves may feel angry, frustrated, or guilty about depriving their loved one of the freedom of driving. Despite these concerns, family members and older drivers alike prefer to keep these conversations "in the family"

www.thehartford.com/mature-market-excellence/family-coversations-with-older-drivers

THE HARTFORD INSURANCE COMPANY CENTER FOR MATURE MARKET EXCELLENCE

Free Home and Driving Safety Guides

From the Hartford Center for Mature Market Excellence click on Publications on prior Hartford site

- You and Your Car: A Guide to Driving Wellness
 - describes how drivers can stay safely on the road for a lifetime
- Your Road Ahead: A Guide to Driving Evaluations
 - Describes the benefits of having a comprehensive driving evaluation from an occupational therapist
- We Need to Talk: Family Conversations with Older Drivers
 - Provides families with easy-to-use, practical information to help them plan ahead and initiate productive conversations with older adults about driving safely
- At the Crossroads: Conversations about Alzheimer's & Driving
 - Helps families determine when it's time for loved one with dementia to stop driving and help them cope with driving cessation

Older Drivers



Getting older does not necessarily mean a person's driving days are over. But it is important to plan ahead and take steps to ensure the safety of your loved ones on the road. NHTSA offers free materials to help you learn more about how to recognize and discuss changes in your older loved one's driving.







Additional Resource

- Promoting older dr
- Talking with Older I Driving
- Video Toolkit on Me Older Drivers
- Drive Well Toolkit: Safety and Mobility

Driving while suffer

For law enforceme

For medical person

Research

www.nhtsa.gov/people/injury/olddrive/ www.nhtsa.gov/Driving+Safety/Older+Drivers or

NHTSA Resources on Older Road Users

- Physician's Guide to Assessing and Counseling Older Drivers
- Older Driver Highway Safety Program Guidelines
- Driving When You Have (A Stroke, Arthritis, Parkinson's, Sleep Apnea, Diabetes, Seizures, Cataracts, Glaucoma, and more)
- Traffic Safety Facts (Older Population)
- Safe Driving for Older Adults
- Driving Safety While Aging Gracefully
- Safe Mobility for Older People Notebook (DOT HS 808 853)
- NCSA Fact Sheet on Older People
- Older Drivers; Cues for Law Enforcement
- Stepping Out-Mature Adults Be Healthy, Walk Safety
- Adapting Motor Vehicles for Older Drivers
- Intersection Negotiation Problems of Older Drivers

ADED Search by Category

CDRS- Certified Driver Rehabilitation Specialists

Certified as a trained expert within the field a CDRS (Certified Driver Rehabilitation Specialists) work with people of all ages and abilities, exploring alternative transportation solutions for drivers with special needs.



Driver Rehabilitation Specialists

Driver rehabilitation specialists work with people of all ages and abilities, exploring alternative transportation solutions for drivers with special needs.

CLICK HERE to search for a

Driver Rehabilitation Specialist

Mobility Equipment Dealers

Mobility Equipment
Dealers provide

Mobility Equipment Manufacturers

Mobility Equipment

www.driver-ed.org

Association for Driver Rehabilitation Specialists

Also have many Disabilities and Driving Fact Sheets



Office of Traffic Safety

About

Topics v

Laws

Reports / Statistics

Audio / Visual Library

Educational Materials

Reports Statistics

Crash Facts mpaired Driving Facts County-Specific Fact Sheets raffic Death and Injury /laps

Expand All Collapse All

REPORTS AND STATISTICS

The Importance of Crash Data

Compiling accurate crash data is critical to OTS. Analyzing crash data allows officials and law enforcement to better address traffic safety issues — by understanding why and where crashes are occurring, and who is being impacted.

OTS produces documents concerning Minnesota's motor vehicle crashes. In addition, OTS houses the state's Fatality Analysis Reporting System analyst. Two major publications produced by OTS are Minnesota Motor Vehicle Crash Facts and the Minnesota Impaired Driving Facts.

What's New

High Risk Driver Analysis

Read the summary of a random telephone survey of Minnesotans for the purpose of examining the behaviors of Minnesotans with regard to a variety of risky driving behaviors. The results of the this survey help to better understand the characteristics of high-

Office of Traffic Safety Website

https://dps.mn.gov/divisions/ots/Pages/default.aspx

You may need to click on "Divisions" & then "Office of Traffic Safety" if it goes to DPS home page

Related

Minneso County

National

Minneso

Reporta report fro

Minneso demogra

Minneso

Minneso

Minneso Sanction

Question road sec

2015 Hic Letter



ROGRAMS:

have a Broadband connection, we that you download the film of your ew these movies you will need dia Player. Click here to download

erpoint Presentations, first em to your computer. Then double th the Powerpoint viewer. download Powerpoint viewer.

The Conversation

Features several older drivers discussing their driving experiences and tips on how you can approach them on this delicate topic. 25:40 total running time

DOW HLOAD

VIEW

Senior Self Assessment: Discussion

DOWNLOAD

Observing Seniors: Discussion Guid

DOW HLOAD

PowerPoint Presentation

DOWNLOAD

The Key

A documentary about signs in the older

50:35 total running time

DOW HLOAD

VIEW

National Road Safety Foundation http://nationalroadsafety.org/programs/senior-driving

Review of Websites

- Office of Traffic Safety:
- https://dps.mn.gov/divisions/ots/reports-statistics/Pages/default.aspx
- Minnesota Alzheimer's Association:
- http://www.alz.org/care/alzheimers-dementia-and-driving
- Minnesota Senior Linkage Line:
- www.seniorlinkageline.com or 1-800-333-2433
- National Highway Traffic Safety Administration:
- http://www.nhtsa.gov/people/injury/olddrive/ or
- http://www.nhtsa.gov/Driving+Safety/Older+Drivers
- The Hartford Mature Market:
- http://www.thehartford.com/mature-market-excellence/family-conversations-with-older-drivers
- Association for Driver Rehabilitation Specialists:
- www.driver-ed.org
- AAA:
- http://dev.seniordriving.aaa.com/
- National Road Safety Foundation
- http://nationalroadsafety.org/programs/senior-driving

Susie Palmer

Susie.palmer@state.mn.us

651-201-7071



Lunch & Exhibits

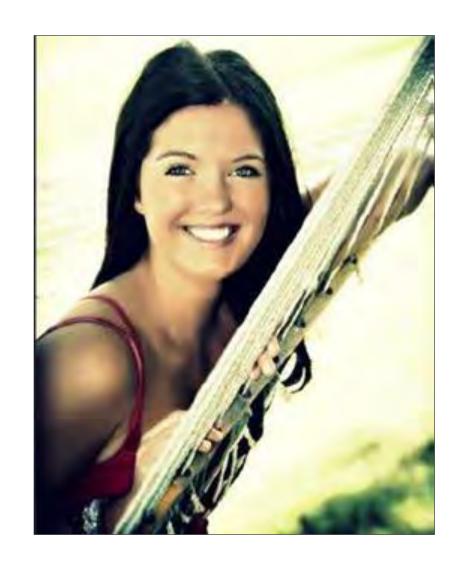




Personal Impact Statement

The Story of Kaylee Holte; a mother's perspective.

- Lisa Ecker





The Story of Kaylee Holte; a mother's perspective.

(Video Clip)





www.claw.nsphotography.com

The vehicle Kaylee was riding in the night of the crash.



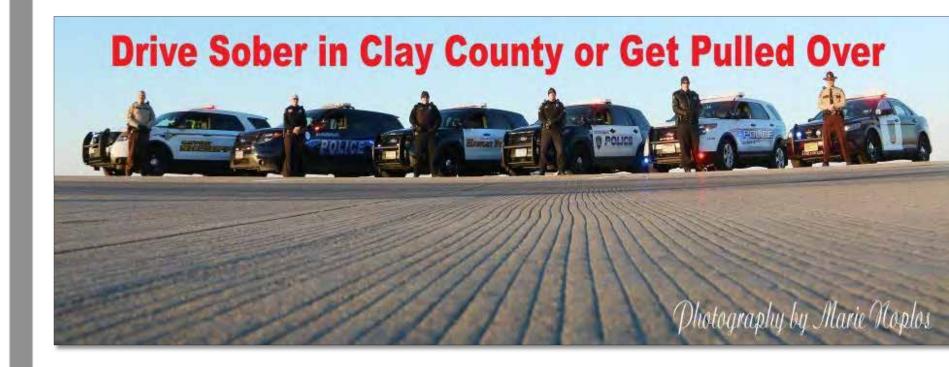


"Don't ever take for granted what you have today because tomorrow it just might not be there!"

Lisa Ecker



Breakout Sessions





Wrap Up

Jody Martinson,
District Engineer,
Minnesota
Department
of Transportation,
District 4





TZD Success Factors



- Commitment to change
 American culture regarding traffic safety
- Collaboration with other traffic-safety advocates
- Promote best practices and lessons learned



How can you be involved in TZD?

- Stakeholder breakfasts in person or online
- Annual statewide conference and/or regional workshops
- Regional TZD Steering Committee meetings, news conferences & special events
- TZD mailing list(s)
- Be a TZD Ambassador!





TZD Statewide Conference

October 29-30, 2015 St. Cloud



www.minnesotatzd.org



Why we do





Goal: Zero Deaths

