



MINNESOTA TOWARD **ZERO** DEATHS

15 Years of Minnesota TZD: Major Accomplishments and What the Future Holds?

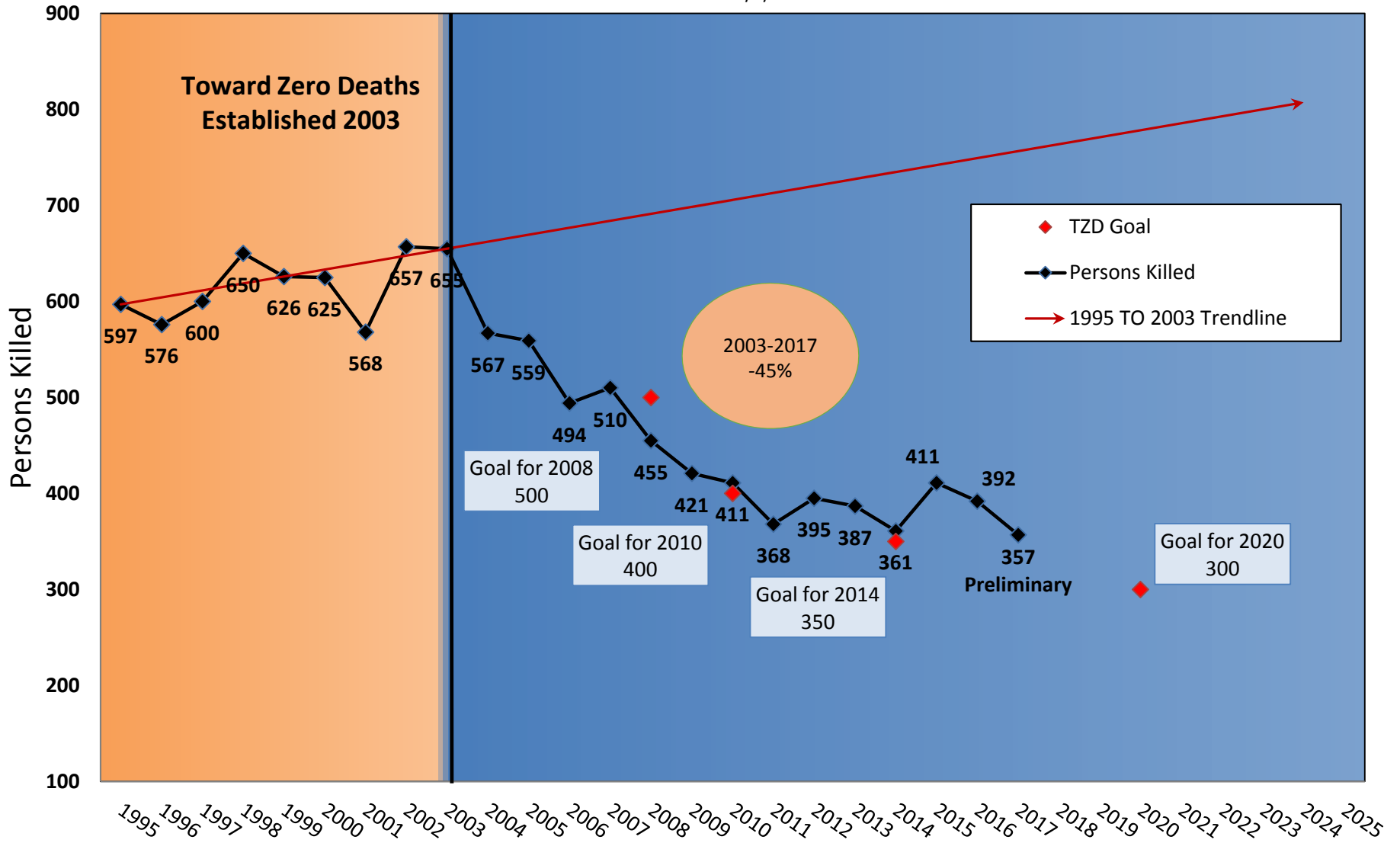
*Kristine Hernandez, Statewide Toward Zero Deaths Program Coordinator,
Office of Traffic Safety & Technology, MnDOT*



April 12, 2018

Minnesota Roadway Fatalities

Source: MnDOT 3/5/2018



How are other states doing?

Illinois, Indiana, Michigan, Minnesota, Ohio and Wisconsin



NHTSA Region 5

High Tension Cable Median Barrier Inplace as of December 2016



HTCMB miles inplace - 2011 to 2016

Division	2011	2012	2013	2014	2015	2016
Duluth	0	0	0	0	0	0
Bemidji	0	0	0	0	0	0
Brainerd	0	0	0	0	0	0
Duluth Lakes	0	0	0	0	0	0
Rockville	0	0	0	0	0	0
Mankato	0	0	0	0	0	0
Wadena	0	0	0	0	0	0
Melrose	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0

Legend

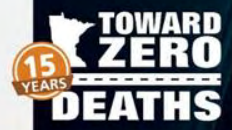
- HTCMB (cable)
- HTCMB (posts)
- US Highway
- State Highway

MDOT Office of Traffic, Safety & Technology February 2017

Minnesota High Tension Cable Median Barrier

95% Reduction in Fatal Head-on Crashes

2003: None
**2014: More than
450 miles**
2016: 578 miles



Roundabouts



- Removes Right Angle Crash potential (T-bone crashes)
- Reduces severe crashes by 80-90%
- Delay Reduction versus a 4-way Stop or Signalization

Description	Total Crashes	K	A	B	C	PDO
Before Crash Rate	0.442	0.0062	0.015	0.054	0.124	0.243
After Crash Rate	0.323	0.001	0.0025	0.022	0.054	0.244
Percent Increase/Decrease (By Rate)	-27.0%	-89.9%	-83.4%	-60.9%	-56.3%	+0.4%

Reduced Conflict Intersections



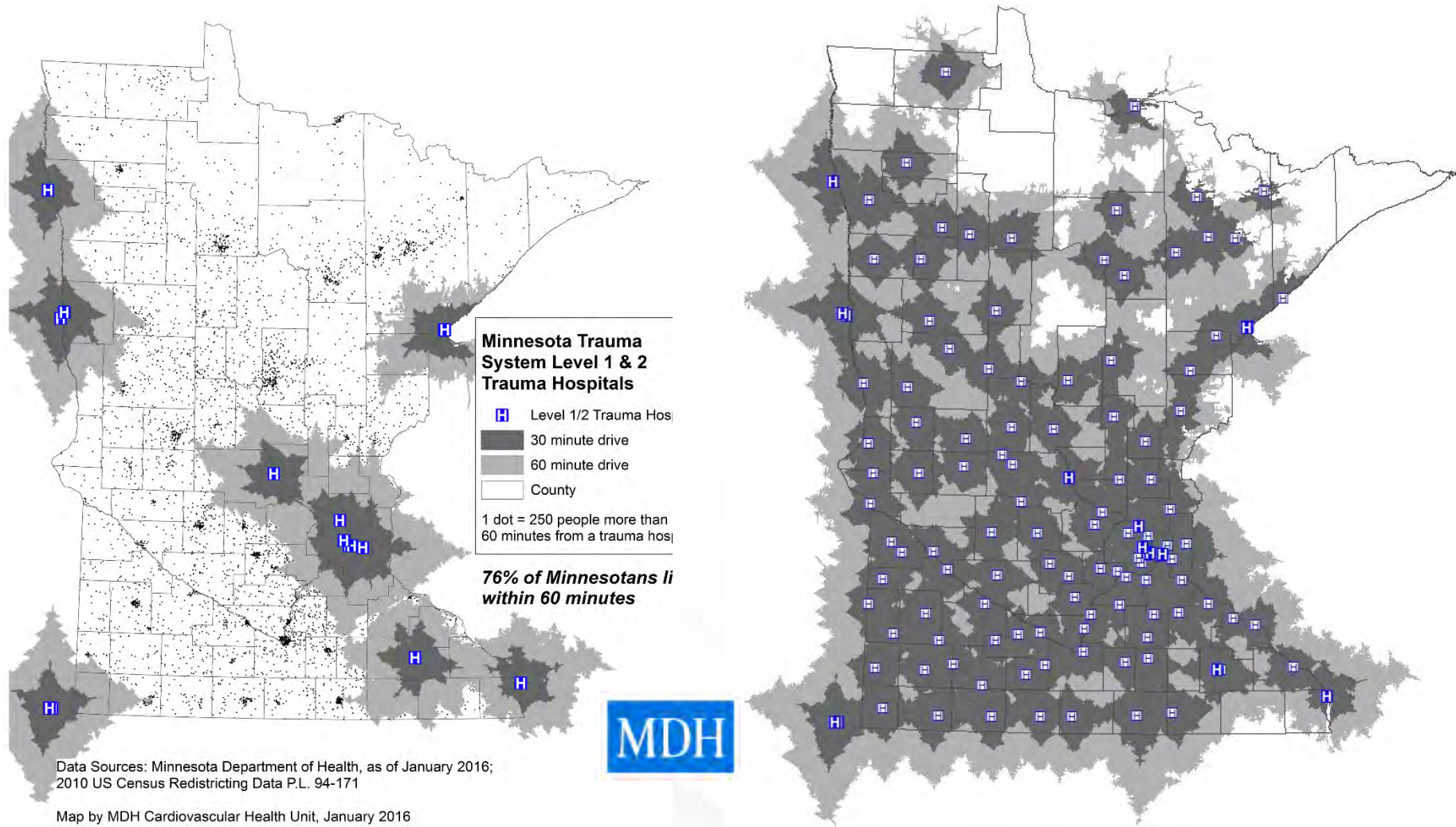
- **100%** Reduction in Fatal and Serious Injury Crashes
- 77% Reduction in Right Angle Crashes
- Many more sites planned, programmed, or in development

County Road Safety Plans



According to Rick West, Otter Tail County engineer:
“...provide practitioners with a detailed, prioritized county-wide, safety plan to guide and support future safety investments. The benefits far outweigh the challenges and have resulted in a safety culture change in Otter Tail County.”

Established Statewide Trauma System



Pre- and Post-TZD

Statewide Auto Launch Policy

- “Es” coming together for incident management
- Reduces response time
- Removes liability in decision-making



DWI Courts



Enforcement

- Highly Visible
- Targeted
- Coordinated state and local efforts
- Multi-state border to border efforts



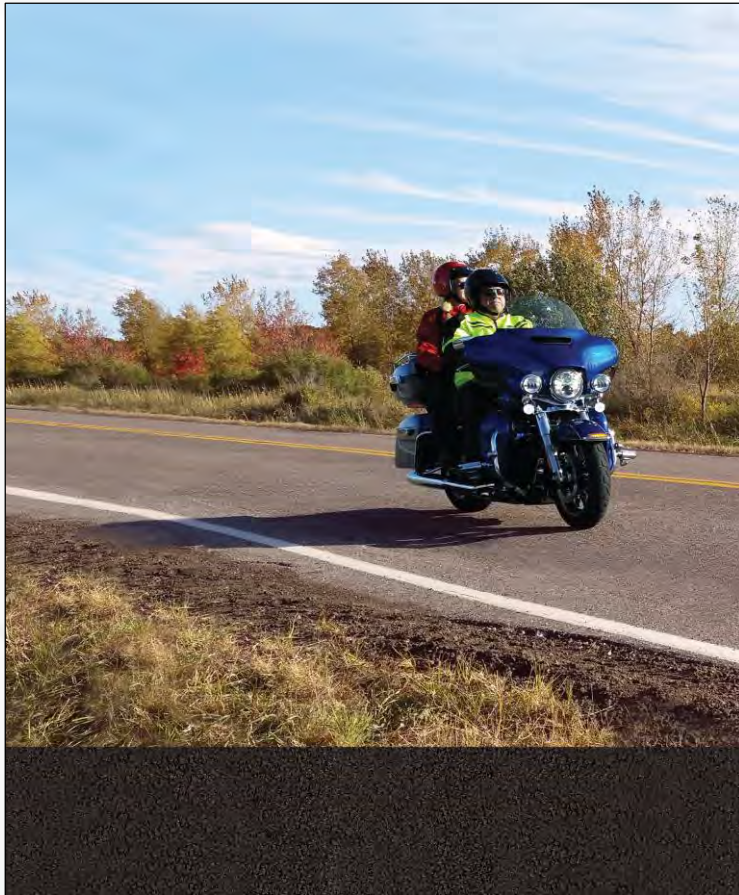
Driver License Sanctions – Ignition Interlock



The number of impaired ($BAC \geq 0.08\%$) drivers in fatal crashes falls

- ↓ 3% when states require interlocks for repeat offenders only
- ↓ 8% when states require interlocks for repeat offenders and first offenders with high BACs
- ↓ 16% when states require interlocks for all DUI offenders, including first offenders

Motorcycle Safety Training



- **2011:** MN Advanced Rider Courses
- **2012:** MN Expert Rider Courses
- **Added Trainings:** 3-Wheel, Moped, Road Guard, Skills Re-test, etc.

1986: 375 Students

Through 2017: 169,740 students in all courses

Teen Hands-on Learning Activities



Wheel of Distraction



Pedal Kart Obstacle Course

TZD *Buckle Up Stencil*

Example: Bemidji State University
(Pennington & Red Lake Counties)



What is *Traffic Safety Culture*?

Shared:

- Values
- Beliefs
- Norms
- Attitudes



North Memorial Health Care



Safeway Driving School



**MnDOT
Fleet &
Watercraft!**

2017: 3-Year Traffic Safety Culture Community Pilot Program begins

3-Phase Work Plan

- Establish community partnerships
- Develop traffic safety culture strategies
- Implement traffic safety strategies



Message Monday!



November 2016

Partnering with MnDOT & DPS

Sharing with Iowa & Wisconsin DOTs

From a Facebook message:

Hi MnDOT! I am a Pennsylvania resident, but was out in Minnesota visiting friends



and saw your sign on 62 near Minnetonka.

I loved it so much, I stitched it on a T-shirt and I wanted to share. Have a great day!!

Traffic Safety Culture



What Makes TZD Successful?

- Addresses all roads
- Multi-disciplined, “4-E” approach
- Proactive/systematic
- Breakdown obstacles (time, attention, silos, resources, habits, turf, credit, attitude)



What lies ahead?

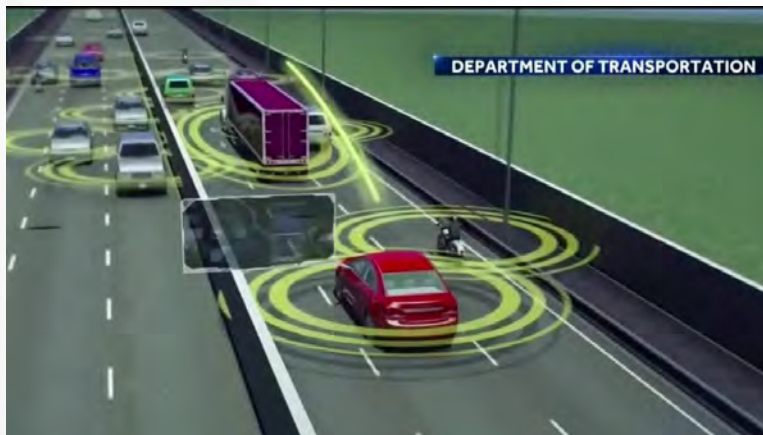
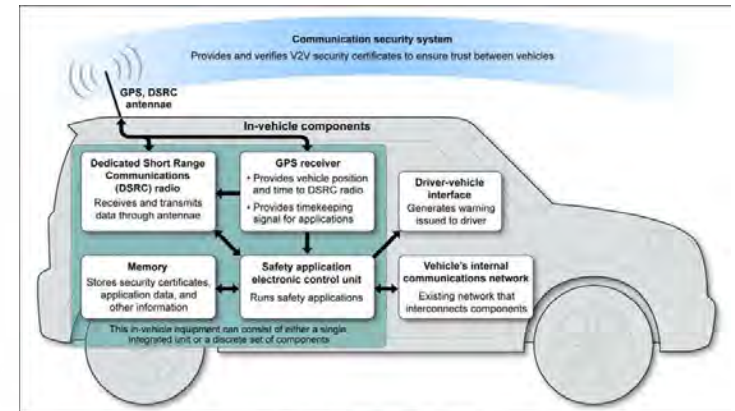


The Future: Automated Vehicles



Vehicle-to-Vehicle Communication: 2020?

- Wi-Fi signal between vehicles
- GPS location & heading
- Relays information before driver is visually aware
 - sudden braking ahead
 - vehicle in blind spot
 - stop-crash alert (intersection)
 - do not pass warning



Future: Partnerships with neighboring states

- North Dakota
- South Dakota
- Iowa
- Wisconsin



Minnesota TZD State Conference or Midwest TZD Conference?

What's next?

Please share your ideas with us!



We are in this together for our communities, families and friends.

Questions & Answers

Contact Information

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