



# Perspectives on roadway safety in reservations

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# A high-stakes issue

- ▶ There are unusually high rates of MVC fatalities and injuries among American Indians, nationally:
  - ▶ MVC rate increased by 52%, compared with a nationwide decrease of 2% (Poindexter 2004, 1975-2002 data)
  - ▶ MVC fatality rate is higher for American Indians and Alaskan Natives than for any other American population group (Pollack et al. 2012)
  - ▶ MVC are leading cause of unintentional injury for American Indians aged 1-44 (Raynault et al. 2010)
- ▶ Tribal, USDOT, and many state and local governments increasingly recognize that improving tribal transportation safety is a priority.

# Common explanations

- ▶ **Individual behaviors:** impaired driving, low rates of safety restraint use, speeding
- ▶ **Road conditions:** signage, lighting, signals, roadway design, surface repair, ice and vegetation management
- ▶ **Historic and structural disparities:** unmet health needs, poverty, distance to travel to jobs and services, limited or delayed access to emergency medical care
- ▶ **Institutional resources and policies:** enforcement, conflicts or gaps in road ownership and responsibility, possibly dry reservation policies

For references, see Narváez & Quick (2016).

# Study context and process

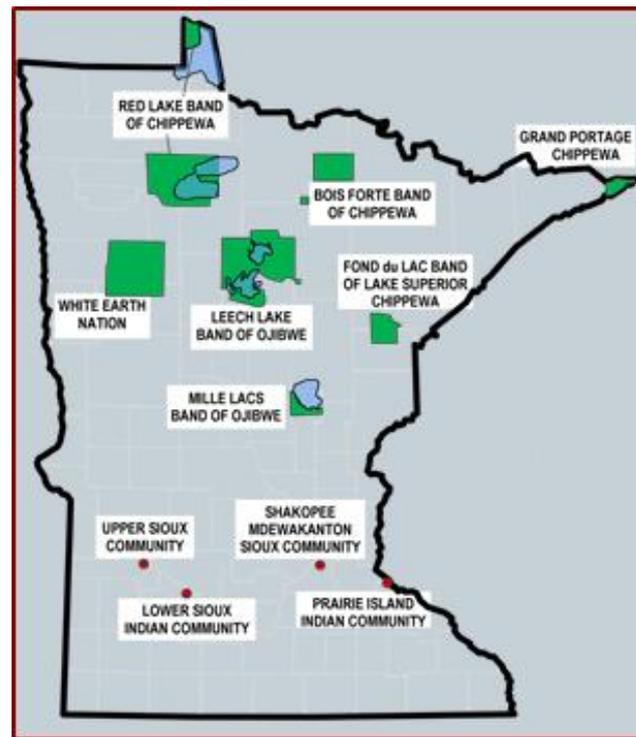
- ▶ Need for situated, qualitative, collaboratively produced data and analysis which:
  - ▶ Includes tribal governments and American Indian communities and scholars
  - ▶ Privileges on-the-ground knowledge and perspectives from many, diverse stakeholders
  - ▶ Attends to contextual conditions (political, historic, geographic scale, climatic, etc.)
  - ▶ Probes distinctions of tribal and other rural transportation issues

Is there something special about roadway safety in reservations?

1. What are diverse stakeholders' perceptions of roadway safety, on- and off- reservation?
2. How do local transportation safety specialists and residents manage risk?
3. What do these new sources of data imply about which interventions seem most likely to improve roadway safety in reservations?

# Collaborative, engaged scholarship

- ▶ Coordination with MN Advocacy Council on Tribal Transportation
- ▶ Partnerships with 4 tribal governments in Minnesota
- ▶ Data collection \*\* through
  - ▶ Reviewing existing data
  - ▶ 77 researcher days in reservations
  - ▶ Interviews w/key “4E” leaders
  - ▶ “Virtual tours” with expert drivers
  - ▶ Quick surveys at community events



\*\* For more info, see Narvaez & Quick's National Academy of Sciences webinar.

# Key stakeholders

	<i>Fond du Lac</i>	<i>Red Lake</i>	<i>Leech Lake</i>	<i>Mille Lacs</i>
<b>1. Road &amp; Safety Experts – tribal government &amp; associated entities</b>				
Road Construction and Maintenance	X	X	X	X
Planning department	X	X	X	X
Law enforcement (chief, highway safety officer)	X	X	X	X
Car Seat & other Injury Prevention	X	X	X	
Emergency responders and/or ER room team	X		X	
Tribal government executive director	X	X		
Other: Tribal Council member, drivers' ed, courts				
<b>2. Expert drivers</b>				
Transit service, school bus drivers, casino shuttle drivers	X	X	X	
Propane delivery	X			
Road / snow crews	X	X		
<b>3. Related Jurisdictions</b>				
County, city, and township public works dept	X	X	X	
MNDOT regional staff	X			
County sheriff, city police, state highway patrol	X	X	X	
Regional TZD & other related entities	X	X	X	
US Forest Service	NA	X	X	NA
<b>4. Centers of Activity</b>				
Casino, schools, other community centers	X	X	X	
<b>5. Interested reservation residents / enrollees</b>				
	Yes, 30	Yes, 76	tbd	Yes, 85

# Interviewing roadway safety managers

1. How are you and your agency involved in reservation roadway safety?
2. How would you describe roadway safety in the reservation?  
*[How much of a concern is roadway safety in the reservation?  
How does this compare with other areas?]*
3. What are the major risks or hazards for roadway safety in the reservation?
4. What are you most interested in doing to improve safety?  
[Note: continuing or new activities]
5. *What do you wish other people or organizations would do to improve roadway safety in the reservation?*

# Views from expert drivers and community members

- ▶ Do you have any concerns, suggestions, or ideas about safety on the roads in the reservation?
- ▶ Are there times, places, or conditions where you avoid being on the road? Where? Why?
- ▶ What would you want a person whom you care about to know about being safe on the roads?
- ▶ Stories of accidents and near misses they, friends, & family have had in the past



Gathering community input at health fairs with Mille Lacs Band, October 2015 (above) and Red Lake Nation, July 2015 (below)

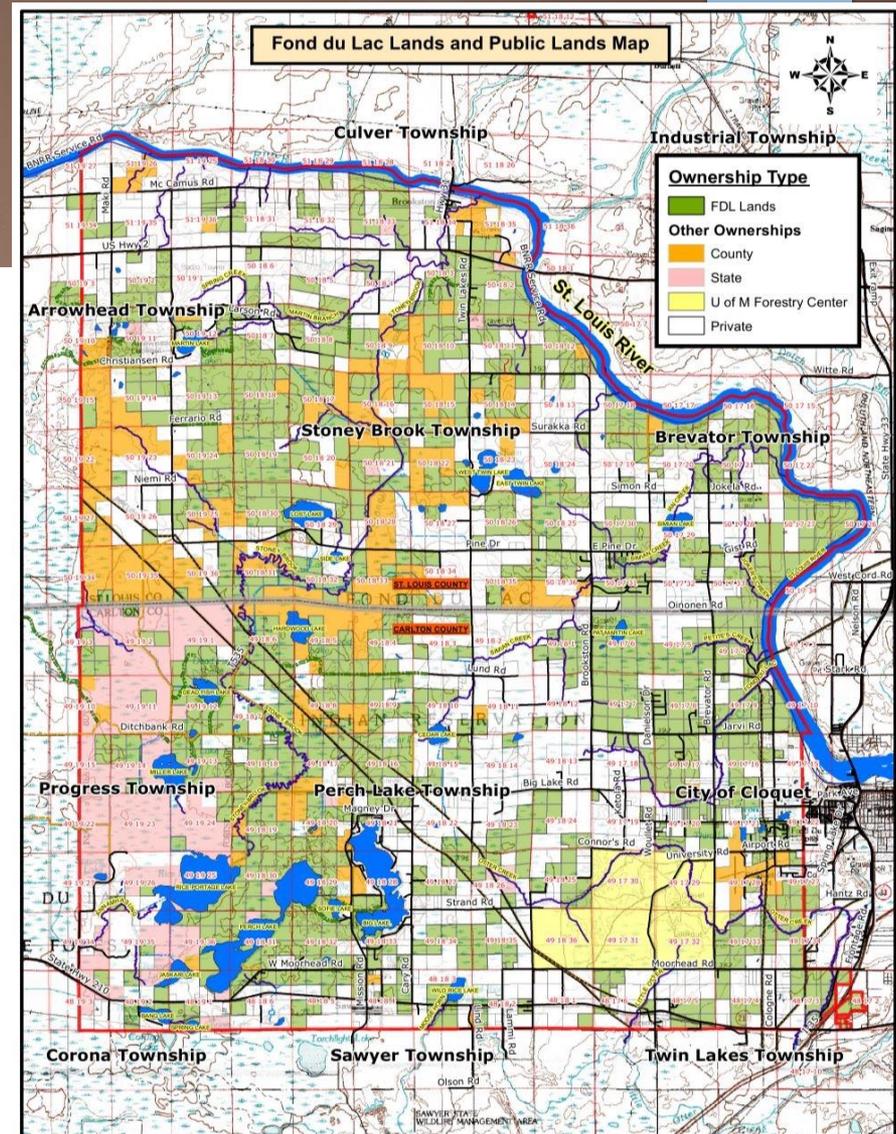


# Preliminary findings from Fond du Lac



# Fond du Lac Band of Lake Superior Chippewa

- Reservation formed by LaPointe Treaty in 1854
- 100,000 acres, now ~43% in tribal ownership
- Total FDL enrollment is 4200<sup>3</sup>
  - 1500 live on the reservation<sup>2</sup>
  - And, 2800 non-FDL members also live on the reservation<sup>1</sup>



# Fond du Lac Data Sources

- ▶ 20 days of researcher fieldwork in the reservation
- ▶ 36 interviews with transportation safety managers
- ▶ 30 interactions at 2 reservation events
  - ▶ FDL Enrollee Days
  - ▶ FDL Police BBQ

Participant Category	Number
Transportation safety managers*	2
Tribal Government	19
Other Jurisdictions	11
Expert Drivers	6
Interested band members	30
<b>Total</b>	<b>66</b>

\*Includes the "4Es" of transportation safety: Engineering and public works, Enforcement (policing and courts), Education (driver behavior, injury prevention); Emergency responders; and transit service supervisors, and general administrator, emergency response)



# Preliminary findings in Fond du Lac

1. Road quality
2. Pedestrian safety
3. Impairment
4. Inter-jurisdictional inter-dependence

# “No difference” in road quality

- ▶ Asked if there's anything distinctively different about roadway safety on and off the reservation:

*I don't think so.... As far as road maintenance and road condition, it's kind of the universal countywide, I guess, and citywide. [a county engineer]*

*I may be blind, but there's no obvious difference in the roads as you enter the reservation. [EMS responder]*

*Everything looks the same.... All the roads look like relatively good shape and all the signs and traffic lights, everything else, seems to be just fine. [state patrol]*

- ▶ Lots of evidence of professional pride in equally applying universal standards of excellence for safety.

# Pedestrian safety: it depends who you ask



*Well, as soon as I get on the rez I know I need to start looking out for pedestrians. That's really the only difference between off and on the rez when it comes to being safe on the roads.*

- Fond du Lac enrollee who lives off the reservation

*I do travel those roads off and on and you do see a lot of youngsters out and about there. I don't know if there's anything special about it because I am only up there about once or twice/year.*

- County commissioner

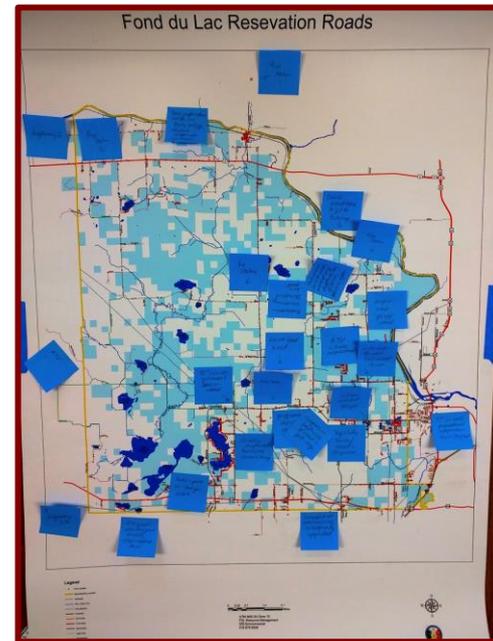
Researcher: We've heard that pedestrian safety issue an issue. Is that your impression as well? Response: *That people are hitting pedestrians?* Researcher: Or that there are more pedestrians in the road? Response: *Hm. I haven't heard that.*

- Law enforcement (non-tribal)

# Pedestrians: views from the ground

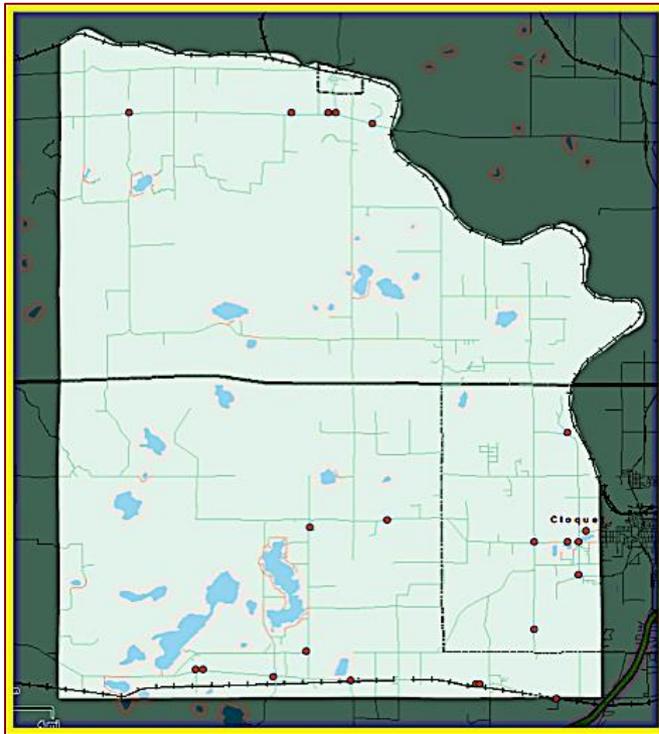


Resident using map to point out areas of concern, including 3 pedestrian safety issues

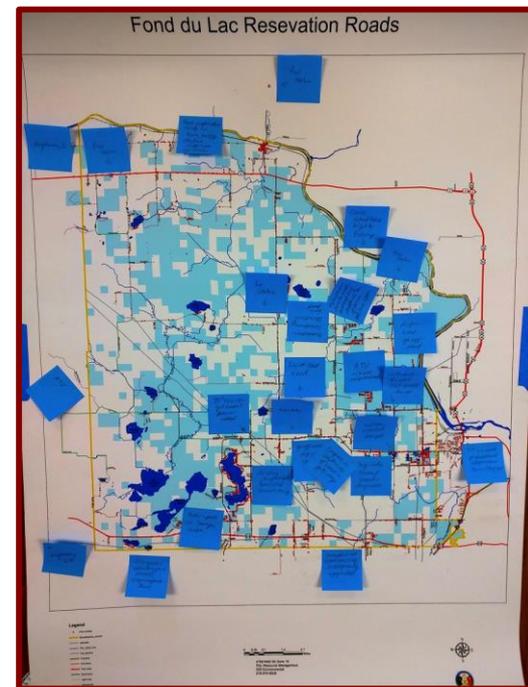


Mark-up from focus group with expert drivers, showing multiple pedestrian safety issues

# Pedestrians: conventional MVC data



MnCMAT (MNDOT &  
MNDPS)  
2011: 23 crashes



Mark-up from focus group with  
expert drivers, showing multiple  
pedestrian safety issues

# Impaired driving

*We haven't seen that.*

Emergency responder

*Without looking at the numbers, I couldn't tell you.*

Non-tribal law enforcement

*The one thing we do have an issue with and it creates an issue with driving: we have a lot of drug issues, and I'm not saying it's a tribal thing or tribal only, it's [my whole county].*

County commissioner

*I might say [long pause]. It might be an overstatement on my part, but it seems to involve impairment. \*\**

Non-tribal law enforcement

*The crash report doesn't say that they were Native American, necessarily, but they're from those areas that have a higher population or risk of alcoholism.... So if they were coming from that area.*

Crash data analyst

# Mixed message on impairment

- ▶ Impairment is a concern, however:
  - ▶ Texting and cell phones are of great concern and is what rose to the top as the key problems for drivers' focus and safe driving.
  - ▶ The data gathered to date do not indicate anything special about reservations for drunk or drugged driving. This contradicts many people's preconceptions.
  - ▶ Take a cue from the study participants: ***Exercise great care with blanket statements about whether impairment is distinctively different in reservations.***

# Mixed message on impairment

- ▶ However:
  - ▶ State data indicates that impaired driving accounts for about 26% of serious injury crashes in MN for 2008-12
    - ▶ 58% occurred in rural areas
  - ▶ The same source indicates that 19% of such crashes involved inattentive drivers.
    - ▶ 54% occurred in rural areas

# Interjurisdictional interdependency

- ▶ Positive stories about sharing funding and other resources to accomplish projects through cooperation.
- ▶ Complicated navigation of overlapping, incomplete, and/or conflicting jurisdictions for:
  - ▶ Road ownership and responsibilities
  - ▶ Funding streams
  - ▶ Applicable laws and policing and court jurisdiction
- ▶ Collaboration requires a huge amount of trust, legal sophistication, and resource inter-dependence.



Jason Hollinday, Director of Planning for the Fond du Lac Reservation, and St. Louis County Commissioner Patrick Boyle, celebrating bilingual signage in the Fond du Lac reservation Source: <http://www.howieblog.com/?p=34085>



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# Thank you!

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