Pedestrian safety in American Indian reservations

Kathy Quick & Guillermo Narváez
Lifesavers 2019
What’s at stake?
Roadway safety & American Indian people

- Motor Vehicle Crashes (MVCs) are the leading cause of unintentional injury for AIAN people aged 1 to 44.
- Their MVC fatality rate is the highest of any racial group in the US. It has risen at the same time rates for the whole US population have declined.

Roadway safety & reservations

- 3,278 fatalities -- 656 per year -- were reported 2010-14 in areas where tribal governments have the greatest influence on roadway safety.

- Fatalities on reservations are under-reported. NHTSA’s method of focusing on formally recognized reservations understates these impacts.
# AIAN and reservation MVC fatalities, 2011-15

<table>
<thead>
<tr>
<th>Category</th>
<th>AIAN fatalities</th>
<th>Tribal area fatalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>All reported fatalities in tribal areas*</td>
<td></td>
<td>*3,278</td>
</tr>
<tr>
<td>Roadway departures</td>
<td></td>
<td>*63%</td>
</tr>
<tr>
<td>All American Indian fatalities</td>
<td>2,840 (100%)</td>
<td></td>
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<tr>
<td>All fatalities on reservations</td>
<td></td>
<td>1,439 (100%)</td>
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<tr>
<td>AIAN fatalities on reservations</td>
<td>777 (27%)</td>
<td>777 (54%)</td>
</tr>
<tr>
<td>Vehicle occupant unrestrained</td>
<td>1,321 (47%)</td>
<td>703 (49%)</td>
</tr>
<tr>
<td>Alcohol-impairment, BAC .08+</td>
<td>1,200 (42%)</td>
<td>613 (43%)</td>
</tr>
<tr>
<td>Speed-related fatality</td>
<td>944 (33%)</td>
<td>543 (38%)</td>
</tr>
<tr>
<td>Pedestrian fatality</td>
<td>551 (19%)</td>
<td>197 (14%)</td>
</tr>
</tbody>
</table>

* These figures are for 2010-14. For sources of all data, see Quick, Larsen, & Narváez (2019).
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 discussion and references, see Quick and Narváez (2018).
Our research
Research question

- What are the roadway safety concerns and priorities of people with the most informed, direct knowledge of American Indian reservations and communities?
Case studies and national survey

- Qualitative, collaboratively produced
- Privileges on-the-ground knowledge and perspectives from tribal governments, reservation communities, and 4E professionals
- Considers what – if anything – is special about reservations
Study findings

https://www.youtube.com/watch?v=fa0hp8hHvHc&feature=youtu.be
Unlicensed driving
Speeding
Data consistency & sharing
Enforcement
Dust control
Impaired driving
Striping
Reckless driving
ATVs
Distracted driving
Highway safety
Animals in road
Traffic
Interagency cooperation
Road maintenance
School-access
Education
Roadway engineering
Funding
Volume
Congestion
Access
Signage
Guardrails
Child restraints
Lighting
Bicycles
Emergency response
Seatbelts
Pedestrians
Tribes’ roadway safety priorities (national survey)

**Highest priorities**
- Vulnerable roadway users: *pedestrians, cyclists, children*
- Road engineering and repair: road design, maintenance, signage, and lighting
- Driver behavior: impaired driving, speeding, and distracted driving
- Restraint use: seatbelt or car seat

**Other high priorities**
- *Inter-jurisdictional coordination* among tribal, federal, state, and local governments
- Law enforcement
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 member 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 a year. [County commissioner]

KQ: You didn’t mention pedestrian safety. We’ve heard it’s an issue. Is that your impression? Response: That people are hitting pedestrians? KQ: Or that there are more pedestrians in the road? Response: Hm. I haven’t heard that. [Law enforcement, non-tribal PD]
Perspectives on pedestrians: MVC data & expert drivers

FARS (USDOT & NHTSA) 2011: 3 crashes

Map mark-up from focus group with expert drivers
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]
Impaired driving? Don’t be so sure.

It must be because of American Indians’ high rates of alcoholism, and [therefore] drunk driving.

State public health staff
And... a dozen other people
Perspectives on impairment: A “nervous area” of policy

We haven not seen that.
   Emergency responder for region.

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. I mean, [the tribal staff person who works on injury prevention] would be the first one to say they have a problem with drinking and driving on [their] reservation. So if they were coming from that area.
   Crash prevention educator, non-tribal, explaining how they use crash data to identify priorities
Cooperation? Sometimes.

"The reservation" is a physical boundary, an attributed identity, and a web of overlapping, incomplete, and/or conflictual jurisdictions:

- Road ownership and responsibilities
- Funding streams
- Assumptions and expectations about behavior
- Applicable laws and policing and court jurisdiction

Collaborating requires a huge amount of trust, legal sophistication, and resource interdependence.

Source: http://www.howieblog.com/?p=34085
Conclusions

“Cass Lake-Bena Safe Routes to School Plan”
Summary of key findings

- Pedestrian safety is a critical, distinctive, and under-recognized priority in reservations.
- Road engineering and repair need sustained resources.
- Impaired driving must not be assumed to be “the” explanation.
- Education and enforcement to increase seatbelt use are essential.
- Tribes need better cooperation with local, state, and federal agencies.
- Further research on reservation roadway safety needs to be sustained and supported.
Pedestrian safety is....

- A critical, distinctive, and under-recognized priority in reservations.
- **The single most distinctive feature of reservations, relative to rural areas more generally.** In reservation communities, many people move around on foot by necessity and preference.
- One of the highest priorities in a national survey of 151 transportation specialists from tribal governments.
- The greatest concern identified – repeatedly, by hundreds of people responding to an open-ended question – in all four case study reservations.
- Probably under-estimated by experts without direct knowledge of reservations who rely on MVC data.
For more information


- Tribal Safety Management Systems steering committee prepared 2 extensive reports to Congress, available at tribalsafety.org
  - Tribal Governments & Transportation Safety Data
  - Options for Improving Transportation Safety in Tribal Areas


- For references of literature cited, please contact the authors for copies of our papers and bibliographies.
We collaborated with Adam Larsen of FHWA on the national survey.

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Additional resource slides
Methods
## Methods: Key stakeholders

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

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?
Methods: Expert drivers & residents

- 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