Native CARS Study (Native Children Always Ride Safe Study)
A Collaborative Study: Tribal Partners

- Confederated Tribes of the Colville Reservation
- Confederated Tribes of Grand Ronde
- Klamath Tribes
- Nez Perce Tribe
- Shoshone-Bannock Tribes
- Spokane Tribe
A Collaborative Study: Academic Partners

NPAIHB *EpiCenter*

- Jodi Lapidus, PhD, Principal Investigator
- Tam Lutz (Lummi), Doctoral Student, MPH, MHA, Jr. Investigator, Project Director
- Nicole Smith, MPH, Biostatistician
- Carol Grimes, MPH, Project Coordinator

University of Washington, Harborview Injury Prevention and Research Center

- Beth Ebel, MD, PhD, Co-Investigator
Overall Goal

Design, implement and test effectiveness of Tribal interventions to improve the use of child safety seats among AI/AN children using a CBPR approach.
Specific aims

• Determine barriers and facilitators that effect consistent and appropriate child safety seat use

• Work with Tribes to determine effective methods to increase child safety seat use, developing tailored community intervention programs

• Implement and evaluate the tribal interventions in six tribes
  – Comparing improvement in child safety seat use in three Round 1 tribes to three tribes who receive intervention in Round 2
Project Timeline

Last presented Spring 2011 on Spring 2009 Baseline Observations

Round 1
- Project Startup
- Intervention Planning
- Intervention Implemented
- No Intervention
- Dissemination

Round 2
- Project Startup
- No Intervention
- Interv Implemented
- Dissemination
- Intervention Planning

Randomization to 1st/2nd round of intervention (3 tribes in each group)

Vehicle observation survey conducted in all six tribes
Today’s Presentation

• How interventions were developed
  — Vehicle observation data
  — Elicitation interviews
  — Focus groups
• Share some interventions implemented
• Results of the 2\textsuperscript{nd} observational survey
  — Were interventions effective?
• Round 2 intervention planning
Vehicle Observations

• 5 minute interview and observation
• Trained observer evaluation:
  – Mapped seating location
  – Restraint use by driver & passengers
• Driver estimated children’s age, weight and distance from home
• Driver interview
  – Opinions about child restraint use
  – Awareness of local passenger restraint laws
• Provided incentive ($5 gift card)

Northwest Portland Area Indian Health Board
2009 Tribe-Specific Results

<table>
<thead>
<tr>
<th>Round 1 Intervention Tribes</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tribe A</td>
<td>24%</td>
</tr>
<tr>
<td>Tribe B</td>
<td>41%</td>
</tr>
<tr>
<td>Tribe C</td>
<td>59%</td>
</tr>
<tr>
<td>Tribe D</td>
<td>64%</td>
</tr>
<tr>
<td>Tribe E</td>
<td>70%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Round 2 Intervention Tribes</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tribe F</td>
<td>40%</td>
</tr>
</tbody>
</table>

Northwest Portland Area Indian Health Board
Percent of Children Properly Restrained by Age, 2009

<table>
<thead>
<tr>
<th>Age</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>70%</td>
</tr>
<tr>
<td>1</td>
<td>79%</td>
</tr>
<tr>
<td>2</td>
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<tr>
<td>3</td>
<td>54%</td>
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<tr>
<td>4</td>
<td>52%</td>
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<tr>
<td>5</td>
<td>44%</td>
</tr>
<tr>
<td>6</td>
<td>23%</td>
</tr>
<tr>
<td>7</td>
<td>26%</td>
</tr>
<tr>
<td>8</td>
<td>42%</td>
</tr>
<tr>
<td>9-12</td>
<td>34%</td>
</tr>
<tr>
<td>Total</td>
<td>49%</td>
</tr>
</tbody>
</table>

(n=1811)
2009 Observation Results

- **45% (630/1408)** of AI children were properly restrained

- Children at risk included kids who were:
  - children riding in vehicles with at least one native person
  - Riding with an adult who was not his/her own parent
  - Riding with an unrestrained driver
  - children riding in areas with child passenger laws weaker than the NHTSA guidelines
  - Booster seat eligible
Elicitation Interviews

• Conducted Semi-structured one-on-one interviews
  – Reveal factors relevant to child safety seat use
  – Relay personal experience, tell “their story”
• Notes were transcribed, cleaned and formatted using a standard transcription method
• Simple coding w/ site coordinators to gauge main theme for intervention development
• Episode Profiles
• Content Analysis in Atlas ti 5.2.
• Interpretation of data
Results: Six themes

• Non parent drivers
• Local trips
• Driving on reservation/off reservation
• Community responsibility for children
• Presence of laws, fines and law enforcement
• Consistent routines, every trip, every time
Intervention Development

• Reviewed 2009 observational data & identified areas that need improvement
  – Booster seats, Non-parent drivers, etc.
• Reviewed elicitation interviews (and identified six main themes)
  – Short trips, law enforcement, etc
• Site Coordinators received training
  – Social media instruction
  – Intervention design and evaluation
  – Press release, radio PSA instruction
• Appropriate approach for intervention determined
  – Awareness, Health education, Behavior change, Public health practice or Policy
• Site Coordinators proposed intervention activity
Focus Groups Refined Interventions

• Completed focus groups
  – Reviewed observation and elicitation interview Findings
  – Reviewed intervention plans
  – Reviewed Print Media Mock Ups

• Revised Intervention and Media Strategies

• Constructed Budget and Timelines

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Intervention Implementation

• 5-7 Intervention Plans per tribe included
  – Education
  – Public Health Practice
  – Policy/Environment
  – Media
Education Interventions

- Child Passenger Safety Technicians
  - At least one at all 3 tribes
  - Continuing process of certifying more
- Seat check stations
- Educational outreach
  - Presentations to tribal health/clinic staff
  - Materials @ health fairs and other events
  - Safe Native American Passenger (SNAP) training
Public Health Practice Interventions

• Coordination of Distribution of Child Safety Seats
• Consistent Messaging Indian Health Service, Tribal Health Providers, Police
• Interdisciplinary Partnership
• Referrals to local site coordinators
• Staff training
Policy Efforts

• Creating or strengthening tribal policy around child passenger safety
  • Making partnerships
  • Proposing declaration to Tribal Councils
  • Drafting law with attorneys (2 tribes)
  • Coordinating with police & justice centers
  • Media campaign to prepare & inform community
• Anticipate long-lasting impact
Print Media: Articles, Brochures, Posters, Social Media, Check Inserts

Newspaper ads

Posters/Flyers

Brochures

Facebook

Check Inserts
Native Children Always Ride Safe

“To Cowboy Up is to Buckle Up!”

Wiley Petersen, Professional Bull Rider and Member of Tribes

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Beyond Print Media

- 4 radio PSAs
- a video PSA
- Power point presentations
- Poster boards
- Displays

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2nd Round Vehicle Observations

• Surveyed 1252 driver carrying 1812 children
  • Conducted observations on or near all six tribes
  • Methods same as 2009 survey

• Measured adult & child passenger restraint use
  • Documented seating position of all occupants of vehicles

• Compared 2009 & 2011 restraint use

• Determined children most at risk for riding unrestrained or improperly restrained

• Driver survey
  • Determined exposure to interventions
  • Documented Support of law change

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Overall, proper child restraint increased from 49% in 2009 to 61% in 2011

Round 1 tribes: post-intervention
Proper use 50%

Round 2 tribes: post-control
Proper use 12%
Tribe-Specific Results

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</tr>
<tr>
<td>Tribe C</td>
<td>59%</td>
<td>69%</td>
</tr>
<tr>
<td>Tribe D</td>
<td>64%</td>
<td>73%</td>
</tr>
<tr>
<td>Tribe E</td>
<td>70%71%</td>
<td>71%</td>
</tr>
<tr>
<td>Tribe F</td>
<td>40%</td>
<td>47%</td>
</tr>
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</table>

Percent of Children Properly Restrainted

Northwest Portland Area Indian Health Board
Percent of Properly Restrained Children by Age & Year, Intervention Tribes

- % proper 2009 (n=953)
- % proper 2011 (n=876)

<table>
<thead>
<tr>
<th>Age</th>
<th>0</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9-12</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>58</td>
<td>71</td>
<td>80</td>
<td>86</td>
<td>57</td>
<td>69</td>
<td>55</td>
<td>46</td>
<td>55</td>
<td>59</td>
<td>57</td>
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Intervention Community Driver Opinions

- 77% of AI drivers were aware of Native CARS media message.
- Community support of a law was 98%, 96%, 96% & 90%
- % Drivers who thought children 7 and younger could safely use adult seat belts was 18%, 32% & 31%
- % of child seats were purchased new by the driver was 76%, 79% & 54%
- % of child seats were from a tribal program was 12%, 6% & 37%
- Reasons for not using a seat
Remaining Risks for Improper Restraint Use in Intervention Communities

- Riding with an adult who was not his/her own parent
- Riding with an unrestrained driver
- Booster seat eligible (ages 5-7)
- Riding in a truck
Round 1 Maintenance

• Site coordinators maintained part time
• One tribe passed law after formal intervention period ended
• Another tribe has drafted a law which may pass in the near future
• Grant writing to secure outside funds for further intervention activities
• Opportunity to see further increase in 2013 observations
Round 2 Intervention Development

- Completed 47 Elicitation interviews
- Completed 5 of 6 Focus groups
- New themes emerged in Round 2 tribe,
  - Rural/recreational driving, consistent integrated safety education, etc
- Old themes became less prominent
  - “everybody’s children,” law enforcement, etc
- Observed difference in environmental & cultural circumstances
- New interventions planned
- Validates need for CBPR – community specific activities

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Publication and Presentations

• Native CARS has drawn national attention
• Journal article accepted for publication
  – American Journal of Public Health
• Health News and Notes Article
• Round 1 tribes presented at Lifesavers national conference on highway safety priorities
• American Public Health Association
• Participated in CDC Motor Vehicle Policy Improvement Workshop
Hy’shqe Si’am

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Beth Ebel, MD, PhD, Co-Investigator

Nicole Smith, MPH, Biostatistician

Carol Grimes, MPH,
Project Coordinator

http://www.npaihb.org/epicenter/project/
native_cars_study

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