



Walking & Rolling in Indian Country

Dena'ina Civic and Convention Center
Anchorage, Alaska
September 25, 2023





YAZH TRALZ

DINÉ TRAIL ADVOCATES AND BUILDERS

YAZH TRAILZ

INDIGENOUS TRAIL DESIGN AND BUILDERS

We are diné mountain bike enthusiasts living on the Navajo Indian reservation located in the southwest of the United States.

The wild west is so wild that the infrastructure is still yet to flourish for its inhabitants. Yazh Trailz is dedicated to indigenous outdoor users. This generation must prepare the next to steward the land as we were once instructed. Providing access to those infrastructures is our goal.



SUNRISE SKI RESORT
WHITE MOUNTAIN APACHE
MAINTENANCE

INDIAN WELLS ELEMENTARY
SIIHASIN TRAILS
NEW CONSTRUCTION



REZDURO
SUNRISE TRAIL
EXISTING TRAIL ENHANCEMENT

REZDURO HAS GIVEN A FRESH BREATHE OF LIFE TO THE INDIGENOUS OUTDOOR COMMUNITY



YAZH TRAILZ LED CONSTRUCTION PROJECTS ALONGSIDE OTHER ENTITIES TO CREATE AND REVISE THE REZDURO TRAIL SYSTEM



Yazh Trailz, Bicycles are the main focus for trail design however the usership is diverse.

We consider a variety of users, whether they are adept or getting familiar with the first steps. We keep the intended user a priority during the design process. These considerations are represented in the featured trail thread.

The diverse surfaces of the navajo landscape offer its own unique challenges to instill sustainability.





We want to create an environment where land users can be instrumental in the creation and stewardship of the accessible infrastructure that's being implemented on the native land.

Land managers and local governing agencies will determine our project sites. We are looking to have a meaningful dialogue with supporters to continue the effort that is our passion.

ΑΛΗΉ'ΕΕ



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Review

The Impact of Land-Based Physical Activity Interventions on Self-Reported Health and Well-Being of Indigenous Adults: A Systematic Review

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Abstract: For many Indigenous communities, decreased participation in traditional land-based activities has led to higher rates of chronic disease and a decrease in well-being. This systematic review explores how traditional land-based activities impact self-reported health and well-being of Indigenous adults, using Indigenous and Western perspectives. A search of three electronic databases (PubMed, Scopus, and Web of Science) identified nine studies which explored the experiences and perspectives of Indigenous adults taking part in land-based subsistence and ceremonial activities. A thematic analysis of these studies identified many interconnected physical, spiritual, mental, emotional, and community benefits. Community engagement throughout all stages of the interventions was an important factor in effectively addressing challenges and barriers stemming from colonization, decreased knowledge transfer, and increased use of technology. Participants reported developing more effective stress management techniques, a greater awareness of modifiable risk factors along with increased engagement with Elders. Ultimately, land-based subsistence and ceremonial activities were identified as playing an influential role in the lives of Indigenous adults. The involvement of community members allowed for the development of more culturally relevant interventions. Future community-specific research is needed to increase engagement in traditional physical activities, improve well-being and overall reduce the risk of chronic disease.

Keywords: Indigenous; self-reported health; well-being; physical activity; traditional activities; adults; health



Citation: Ahmed, F.; Zuk, A.M.; Tsuji, L.J.S. The Impact of Land-Based Physical Activity Interventions on Self-Reported Health and Well-Being of Indigenous Adults: A Systematic Review. *Int. J. Environ. Res. Public Health* **2021**, *18*, 7099. <https://doi.org/10.3390/ijerph18137099>

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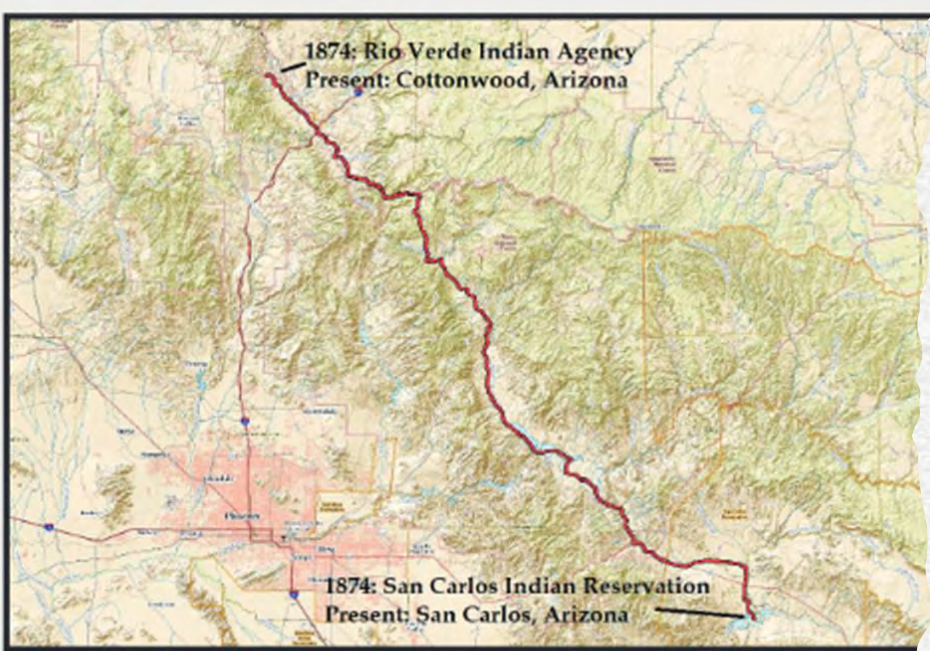


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1. Introduction

Connection with the land has always been a fundamental part of the health and well-being of Indigenous communities [1]. The land not only provides a source of sustenance, but is a crucial part of maintaining cultural identity, along with benefits at the individual, family and community level [1,2]. The notion of cultural identity relating to well-being was first articulated in research by Durkheim [3], who stressed the importance of culture in defining an individual. This idea, however, has been longstanding in Indigenous teachings such as the medicine wheel, which is used in some cultures, and serves as a metaphor for a diverse range of spiritual concepts. One of those concepts is the interconnectedness of internal and external factors which must align to achieve overall well-being [4,5]. In Western approaches to health, it has only been recently acknowledged that Indigenous culture, identity, and lifestyle are deeply rooted in their land, and ultimately their well-being [6,7]. This was observed in a study by Flossain and Lamb [5], which found that providing support and opportunities for traditional activities, such as arts, crafts, hunting and fishing, led to greater psychological well-being for Indigenous people in Canada living in non-metropolitan areas.





The trail, as mapped in 2016.



Benefits of Walking

- Improve Circulation
- Shore Up Your Bones
- Enjoy a Longer Life
- Lighten Your Mood
- Lose Weight
- Strengthen Muscles
- Improve Sleep
- Support Your Joints
- Improve Your Breath
- Slow Down Mental Decline
- Lower Alzheimer's Risk
- Do More for Longer



4 Things That Make Walking as Good as Driving



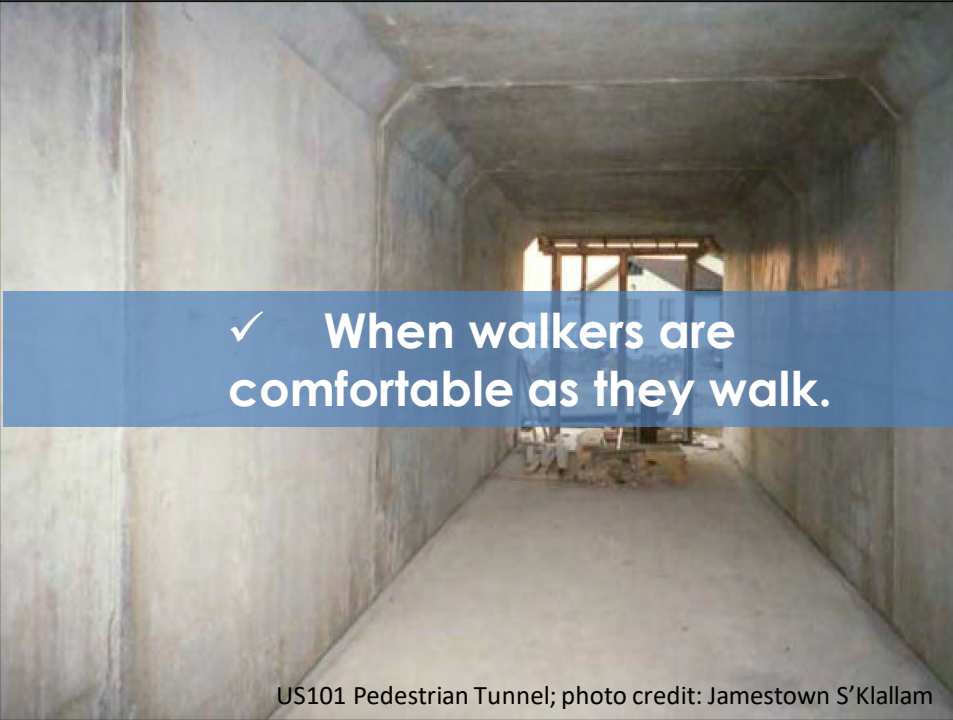
✓ When walkers have a proper reason to walk.



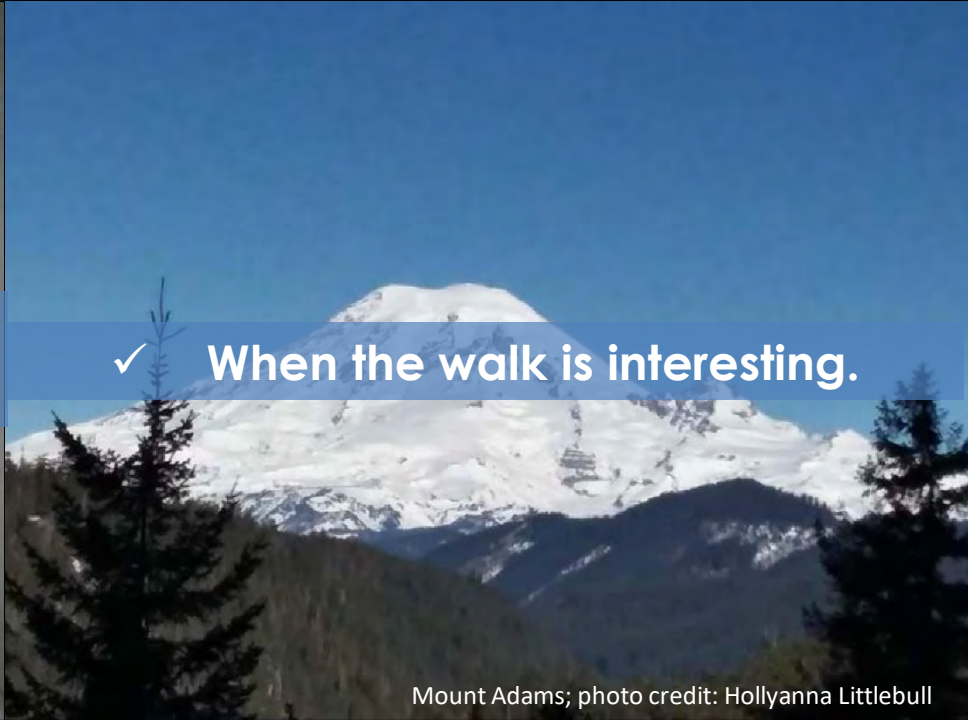
✓ When walkers are kept safe and feel safe.



✓ When walkers are comfortable as they walk.



✓ When the walk is interesting.





ORIGIN



STOP



STOP



DESTINATION



Lummi Transit-Lummi Shore Rd



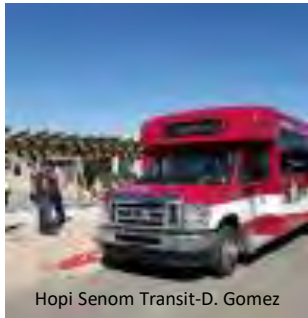
Muscogee Nation Transit Authority-Amy Hill



Hopi Senom Transit-Google Maps



North Central Regional Transit District



Hopi Senom Transit-D. Gomez



Capacity Builders-NRTAP

Benefits of Engaging with Tribal Transit Programs



All bus riders originate as pedestrians or bicyclists.



**All bus riders
originate as
pedestrians or
bicyclists.**



What We Must Overcome for Safe Walking

Pedestrian Fatality Statistics

URBAN CRASHES (%) RURAL CRASHES (%)

Crash Characteristics

Reservation Jurisdiction		
Yes	0	28.9
No	100	71.1
Time of Day (Crash)		
Dark	24.3	72.3
Daylight	24.3	21.3
Dawn/Dusk	2.8	0.0
Dark/Lighted	48.6	6.4
Alcohol Involvement (BAC>0.8)		
Yes	69.2	54.2
No	30.8	45.8
Day Of Crashes		
Weekday (M-TH)	38.5	60.8
Weekend (F-S)	61.5	39.2
Roadway Profile		
Level	87.5	64.4
Grade	14.3	22.2
Hillcrest/Sag	0.0	13.4

URBAN CRASHES (%) RURAL CRASHES (%)

Pedestrian Characteristics

Males	80	70.4
Pedestrian Drinking (Males)		
Yes	54.3	58.6
Top Contributing Factor		
Walking in Road	28.2	54.1
Improper Crossing	20.5	6.2
Not Visible to Driver	7.7	18.8
Dart/Run into Road	23.1	2.1
Failure to Yield	5.1	0.0
Other	15.4	8.8



U.S. Department of Transportation
Federal Highway Administration

FHWA-SA-04-007
Technical Report

September 2004

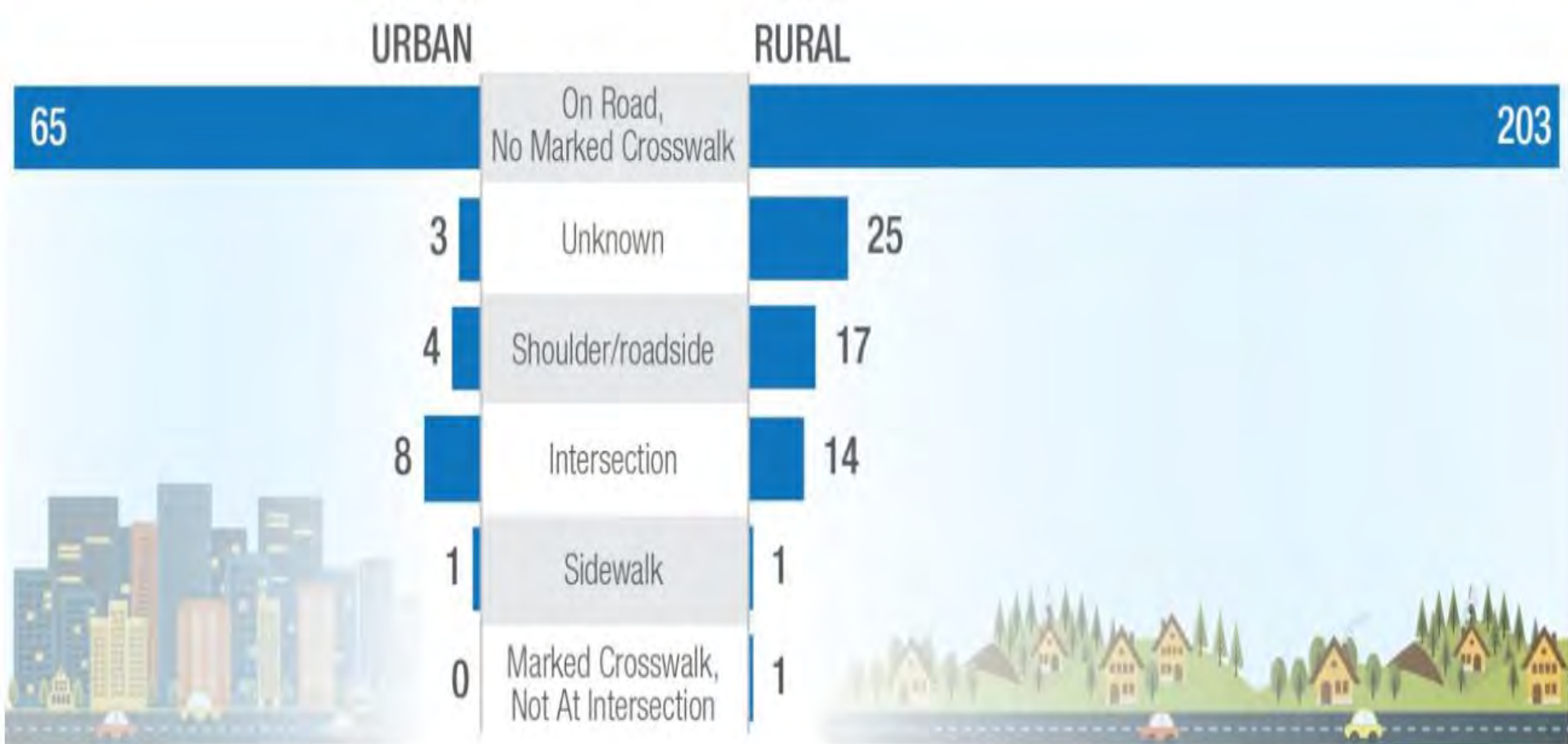
Pedestrian Safety in Native America



<https://bit.ly/3NhikCc>

Contributing Factors

- Rurality
- Lack of visibility
- Income Inequality
- Lack of crash data
- Speeding and speed variations
- Lack of traffic control devices
- Lack of pedestrian accommodations
- Alcohol involved with peds & drivers

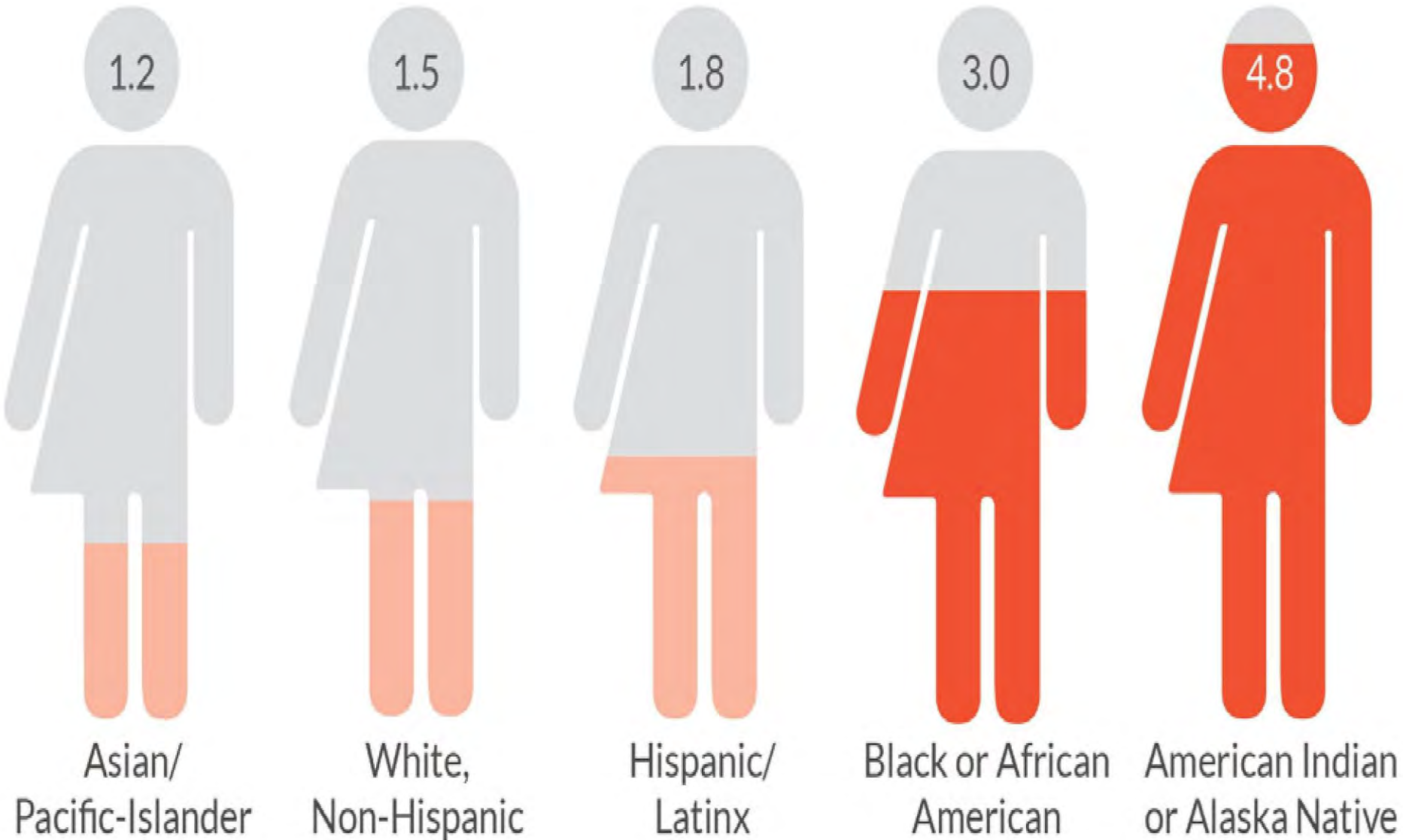


Pedestrian Fatality Statistics

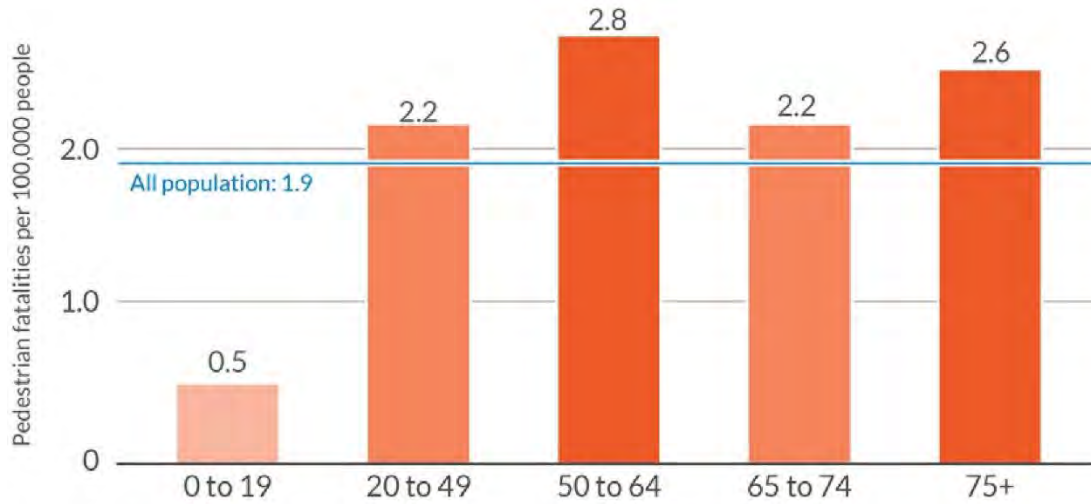
Graph of Pedestrian Fatality Locations 2010-2014 from the Tribal Transportation Strategic Safety Plan

<https://bit.ly/3zKTCof>

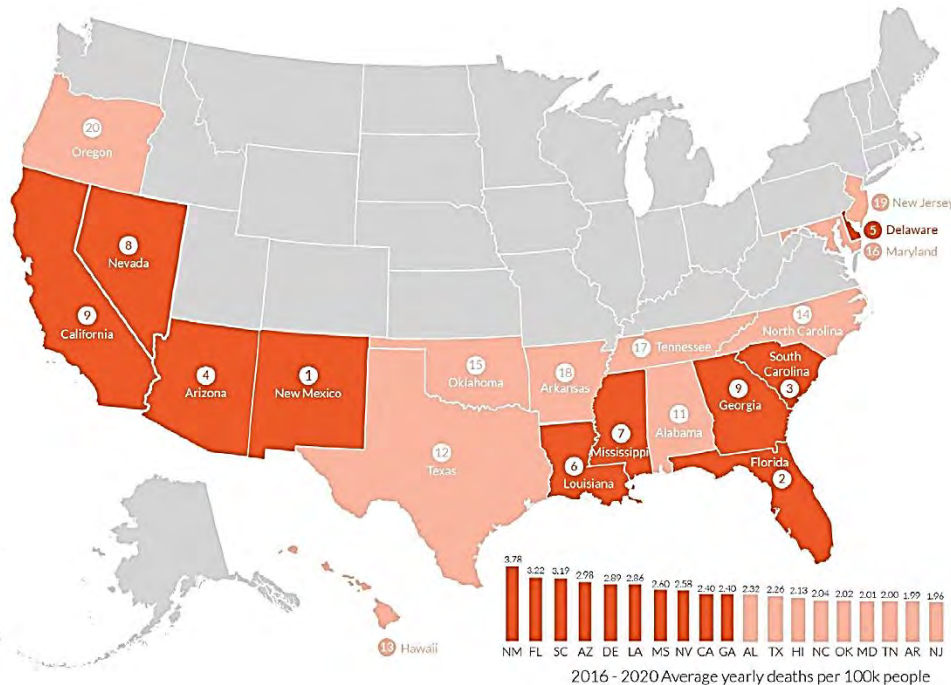
Pedestrian deaths per 100,000 by race & ethnicity (2016-2020)



Pedestrian Fatality Statistics



(At left) Ped Fatalities per 100,000 people by age (2016 - 2020)



(At left) THE TOP 20 Most Dangerous States for Pedestrians



**SRTS = One of
Many Potential
Policies for
Permanent
Change**





The Original “5 Es” of SRTS



Education

Pedestrian & bike safety + skills curricula & activities for children, parents & community members

Encouragement

Fun, educational & motivational activities to promote walking & bicycling

Enforcement

Changes unsafe behaviors to help kids, parents & drivers follow traffic rules & become aware of pedestrians & bicyclists

Engineering

Infrastructure improvements to the built environment around the school that improve safety

Evaluation

Ongoing information-gathering to assess and/or improve Safe Routes to School program design



Tribal Safety Plan & SRTS Route/Travel Plan Development Is Very Similar



SRTS National Partnership's recent ["Back to Basics - An Introduction to Safe Routes to School"](#) webinar.



Education & Encouragement





Chevak, AK; photo credit: Steve Soenksen



Chevak, AK; photo credit: Steve Soenksen



Klawock, AK; photo credit: Steve Soenksen



Coffman Cove, AK; photo credit: Steve Soenksen

Engineering

Adding a sidewalk cuts in half the risk that a pedestrian will be struck by a car.



Formalizing an existing desire line (“goat trail”) ensures its usage and community connectivity.





Photo credit: Rhonda James



Photo credit: Rhonda James



Photo credit: Rhonda James



Photo credit: Rhonda James

Pawnee Nation Walking Trail

“... I have seen that in any great undertaking, it is not enough for a man to depend simply upon himself...” --Lone Man (Isna-la-wica) Teton Sioux



Chevak, AK; photo credit: Steve Soenksen



Chevak, AK; photo credit: Steve Soenksen



Naknek, AK; photo credit: Steve Soenksen



Naknek, AK; photo credit: Steve Soenksen

Engineering



Hooper Bay; photo credit: Kevin Meyer, National Park Service archive

Evaluation

Welcome
to
Dillingham



Sponsored by the
Chamber of Commerce





735 N Daniels Ave

2 ft





8 ft

[Report a problem](#)



Benefits of Biking



Cole House at 26
Racing Pro from
Oneida Nation



Sacaton, AZ; photo credit: Michia Casebier



Peach Springs, AZ; photo credit: Michia Casebier

“Life is like riding a bicycle. To keep your balance, you must keep moving.” -- Albert Einstein





Tribal Biking Successes





Adapting the League's Curriculum

Bike Traffic Skills Class

FREE CLASS

Open to Te-Moak Tribe of Western Shoshone Youth (10 - 18 years)

Taught by

- Michla Casebler, League Cycling Instructor #3685
- Brett Cohen, League Cycling Instructor #4388



Bicycling Skills 123: Youth Course - Bikes & Helmets Required!
Learn New Skills on Your Own Bike + Helmet Fitting



Cole Hovda, Racing Pro, 26, Oneida Nation

Topics covered

- Checking Air, Brakes & Crank (ABC Quick Check)
- Basic Skills & Emergency Stopping
- Hand Signals & What Part of the Road to Ride On
- How to Ride on Elko Streets
- Fun & Games + Helmet Decorating

Registration Required - Enrollment maximum = 20 youth

Register at the Administration Building with the Tribal Motor Vehicle Crash Injury Prevention Program

Class Location

In the parking lot at the Elko Indian Colony Gymnasium, Elko, Nevada 89801



Class date and time

Thursday, June 11 • 9 a.m. - 3 p.m.



For more info, contact Aaron Sam or Sharon Alna: 775-738-9251,
email: tmktrafficspecialist@yahoo.com or tmkti@yahoo.com



Te-Moak Tribe of Western Shoshone Bike Traffic Skills Class Agenda
Elko, Nevada | Elko Indian Colony Gymnasium and Parking Lot
June 11, 2015

THURSDAY - 9:00 am to 3:00 pm

Sign-in & Name Tags - Brett Cohen & Officer H double-check participants' bikes to assess their condition.

1	Welcome & Introductions	9:00 am to 9:15 am	:15
	• Helmet Fitting/Care/Decoration (Esther, Erica & Michla)	9:15 am to 9:45 am	:30
	• Overview of Class and Materials (All)	9:45 am to 9:50 am	:05

Activity Stations

2	Getting Started (Brett, Michla, Erica & Officers H & H)	9:50 am to 10:05 am	:15
	• ABC Quick Check		
	• Mounting/Starting and Stopping/Dismounting		
3	Basic Bike Handling	10:05 am to 10:35 am	:30
	• Straight Line/Balance		
	• Scanning/Signaling/Turning		
	Snack/water break	10:35 am to 10:45 am	:10
4	Avoidance Maneuvers	10:45 am to 11:45 am	1:00
	• Quick Stop		
	• "Rock Dodge" - Dodging Hazards		
	• Instant Turn		
	Lunch/Guest Speakers/"Rules of the Road"	11:45 am to 12:30 pm	:45
5	Rules of the Road	12:30 pm to 1:00 pm	:30
	• Entering and Crossing the Road		
	• Along the Road		
	• Intersection		
6	Fun and Games	1:00 pm to 1:45 pm	:45
	• Chaos Box		
	• Slow Bicycle Race		

Course Planning & Implementation Challenges



Te-Moak Tribe of Western Shoshone



Unique Successes Realized





Unique Successes
Realized

Recommendations

Identify

places with 2 - 3 of the 4 things people need in their walk environment.

Develop

the other missing elements at those locations to get to the 4 needed.

Assemble

a team to improve bike-ped safety on an ongoing basis.

Complete

walk audits, bike RSAs & a Safest Route to School or... Through the Community map.

Host

bike-ped-related events, trainings & activities to build into sustainable programs



Tribal bike-ped safety = reclaimed roadways, sovereignty, improved crossings & slower speeds.



Resources



Potential Funding

- Outride Fund
- EPA Smart Growth Technical Assistance Programs
- National Park Service - Rivers, Trails, and Conservation Assistance Program
 - Notah Begay III Foundation
 - Tribal Transportation Program
- Tribal Transportation Program Safety Funds



Potential Funding

- Transportation Assistance Program
- Land and Water Conservation Fund
 - Federal Lands Access Program
- Community Development Block Grant
- Indian Community Development Block Grant
- BIA Tribal Tourism Grant Program



Potential Funding

- US DHHS [Office of Minority Health](#)
 - National Institutes of Health
 - Diabetes and Injury Prevention grants
 - National Indian Health Board
 - Highway Safety Improvement Program (HSIP)
 - Centers for Disease Control and Prevention
- Substance Abuse and Mental Health Services Administration
 - Health Resources and Services Administration
 - Community Development Block Grant & ICDBG
- Robert Wood Johnson Foundation - [Pioneering Ideas: Exploring the Future to Build a Culture of Health](#)
 - Administration for Native Americans grants
 - U.S. Department of Housing and Urban Development
 - FEMA Hazard Mitigation Assistance & Pre-Disaster Mitigation grants
 - Congestion Mitigation and Air Quality grants



Resources

PEDESTRIAN AND BICYCLIST ROAD SAFETY AUDIT (RSA) GUIDE AND PROMPT LIST



U.S. Department of Transportation
Federal Highway Administration

SEPTEMBER 2020

<https://bit.ly/3sCdHcd>



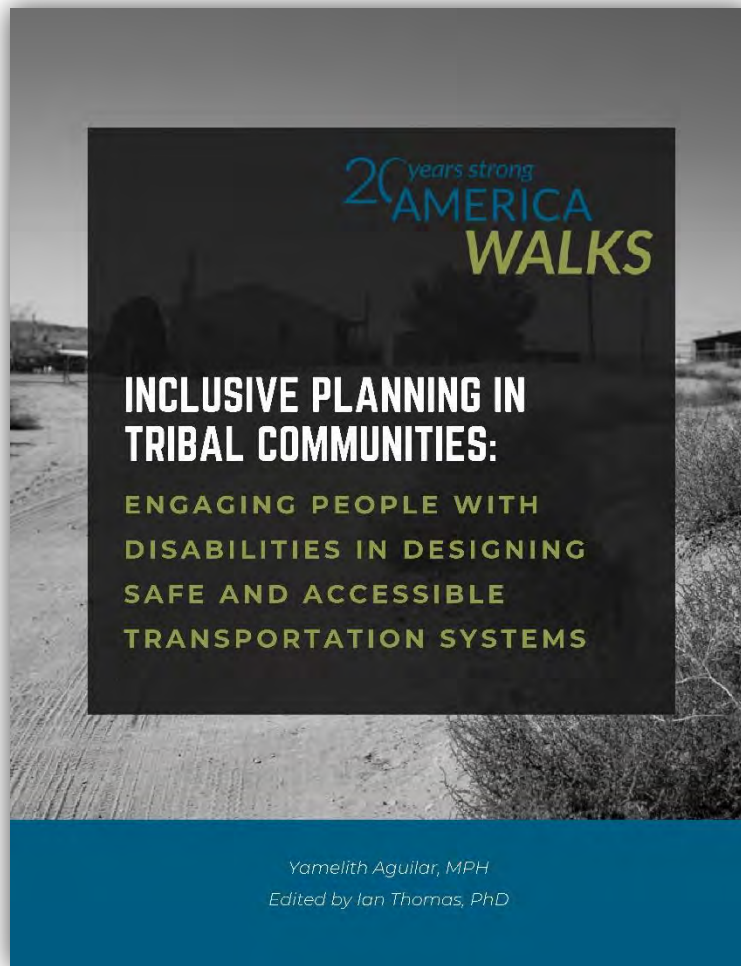
Resources



email: mgtecwtg@gmail.com



Resources



<https://bit.ly/3sEXEum>





SHORT OF THE WEEK



THE TRAILS BEFORE US

Nihida'nítingóó

<https://vimeo.com/733476115>

IN THE
DIRT



1997

IN THE
DIRT

<https://tinyurl.com/5drxcekn>

Questions?

“As I walk, as I walk, the universe is walking with me.” -- from the Diné rain dance ceremony



**Thank you!
Feel free to
contact:**

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