

Inclusive Planning in Tribal Communities:

*Engaging People with Disabilities in Designing
Safe and Accessible Transportation Systems*

Yamelith Aguilar

(Edited by Ian Thomas)

Contents

- Inclusive Planning in Tribal Communities: 1
- Executive Summary 4
- Introduction..... 5
- Project Overview 5
- Disability in Native Cultures and Communities 6
- Colonialism and the Theft of Native Land 7
- Study Methodology..... 8
- Literature Review..... 8
- Project Advisory Board..... 8
- Other Key Informants 11
- Research Findings..... 13
- Summary of Findings..... 13
- Accessibility in Tribal Communities 14
- Many tribal communities lack basic infrastructure for walking, biking, and rolling 14
- Tribal governments do not always have jurisdiction over the roadways within their communities. 15
- The Americans with Disabilities Act of 1990 (ADA) is not consistently enforced in Indian Country 15
- Available funding often does not prioritize safety or accessibility for active travel 16
- Inclusive Engagement with People with Disabilities..... 16
- Intentional outreach efforts to engage people with disabilities in planning processes are rare 16
- Public health data and research into transportation needs for people with disabilities are lacking.. 17
- Many tribal communities do not have any organized advocacy for people with disabilities 17
- Case Study: Pueblo of Jemez..... 18
- Existing conditions: 18
- Compliance with the ADA: 19
- Previous engagement strategies: 19
- Plans for the future:..... 19
- Challenges:..... 19
- Recommendations..... 20
- Summary of Recommendations 20
- Recommendations for Community Assessment 21
- Organize mobility audits..... 21
- Conduct more research into the prevalence and needs of people with disabilities..... 21

Incorporate local data into state and federal funding applications	22
Recommendations for Advocacy, Planning, and Policy.....	22
Build a local advocacy movement	22
Design an inclusive and accessible public engagement process which uses a variety of strategies.	23
Develop a Built Environment Mobility Improvement Plan in partnership with people with disabilities	24
Follow ADA guidelines	25
Recommendations for Engineering Design	25
Utilize materials that make trail surfaces accessible.....	25
Ensure projects address accessibility for people with all types of disabilities	25
Incorporate cultural elements into the design of mobility projects.....	26
Conclusions and Next Steps.....	27
About the Author	28
About the Editor.....	28
About America Walks.....	29
About NCHPAD	29

Executive Summary

American Indians and Alaska Natives (AI/AN) have the highest prevalence of disability (about 30%) of all racial and ethnic groups in the United States. At the same time, the accessibility of public spaces and safety of roadways in tribal communities are lacking and AI/AN have a “per capita” pedestrian fatality rate more than four-and-a-half times the national average.

To address these troubling statistics, the National Center on Health, Physical Activity, and Disability (NCHPAD) awarded America Walks a *Partnership for Inclusive Health Innovation* grant. The purpose and title of this project is to advance inclusive planning in tribal communities by engaging people with disabilities in designing safe and accessible transportation systems. This white paper presents research into the extent to which people with disabilities are currently included in tribal planning processes and recommendations for making those processes more inclusive.

A comprehensive literature search and key informant interviews with eleven subject matter experts yielded a number of findings regarding accessibility in tribal communities and inclusive engagement with people with disabilities. Through in-depth analysis and discussions with a Project Advisory Board made up of tribal planners/engineers and national disability advocates and professionals, ten specific recommendations are presented in the areas of community assessment; advocacy, planning, and policy; and engineering design.

In addition to the key findings and recommendations, this white paper includes context-setting discussions of cultural attitudes to disability among AI/AN communities and the theft of Native land by European colonists. There is also a detailed case study of Pueblo of Jemez – an indigenous community in northern New Mexico with more than 3,900 tribal members, where pedestrian safety and accessibility for people with disabilities are the focus of inclusive planning efforts.

Following publication of this white paper, a National Stakeholders Meeting will be held early in 2021, at which the high-level outline of an Implementation Plan will be developed. Two \$2,500 mini-grants will then be awarded to communities or groups which present credible proposals for implementing some of the white paper’s recommendations and advancing inclusive planning in tribal communities.

Yamelith Aguilar and Ian Thomas
December 7th, 2020

Introduction

Project Overview

The purpose of this project is to advance inclusion of people with disabilities in transportation planning for tribal communities. By centering the lived experiences of people with disabilities, this white paper seeks to bring about changes in tribal government policy, planning, and design processes which will lead to improvements in the accessibility of the built environment.

With funding support from the National Center on Health, Physical Activity, and Disability (NCHPAD), America Walks is working to implement the Nine Guidelines for Disability Inclusion (*Commit to Inclusion, 2017, [Guidelines for Disability Inclusion](#)*):

1. Inclusion of people with disability in objectives
2. Involvement of people with disability in development, implementation, and evaluation
3. Program accessibility
4. Accommodations for participants with disability
5. Outreach and communication to people with disability
6. Cost considerations and feasibility
7. Affordability
8. Process evaluation
9. Outcomes evaluation

The specific goals for the project are to:

- Identify and reach out to individuals and groups working on advocacy for people with disabilities, planning/transportation in tribal communities, and intersections between these areas
- Use these partnerships and a literature review to research the field of advocacy for access and mobility for people with disabilities in tribal communities and the inclusiveness of identified initiatives
- Develop a white paper which documents research findings, identifies gaps in accessibility advocacy and inclusiveness of existing initiatives, and recommends specific strategies to address the gaps
- Host a broadcast webinar to disseminate the research findings in the white paper, and a “National Stakeholders Meeting” to develop a strategy for implementing the recommendations
- Coordinate a mini-grants program, through which two organizations or coalitions will be funded to conduct projects which advance inclusive planning in tribal communities.

It is important to note that this white paper is being researched and written during the time of the Coronavirus (COVID-19) pandemic. For communities already lacking in housing, health care, communication, transportation, and safety services, COVID-19 adds another layer of crisis to the ongoing challenges in Indian Country. According to the Indian Health Service, 6.5% of tribal residents tested for COVID-19 are positive, and this is believed to be an underestimate. Tribal communities are

experiencing added mental health concerns and fear of their families, especially their elder members, contracting COVID-19 (Gable, 2020). There is also a negative economic impact with public health shutdowns causing severe financial stress for tribal communities (Mineo, 2020).

Disability in Native Cultures and Communities

“Disability” is generally understood to encompass a wide range of specific types of disabilities including, but not limited to:

- *Blind/low vision* – can be a condition from birth or acquired as a result of disease or with age
- *Deaf/hard of hearing* – as for visual disabilities, deafness or hearing loss can be lifelong or acquired
- *Physical/mobility* – defined as a limitation on a person’s physical functioning, mobility, dexterity, or stamina that limits daily living
- *Communication* – a reduced ability to receive, send, process, and comprehend concepts or verbal, nonverbal and graphic symbol systems
- *Learning* – lifelong disorders that interfere with a person’s ability to receive, process, or express information
- *Psychiatric* – cause difficulty coping with the tasks and interactions of daily life
- *Developmental* – a group of conditions affecting movement, learning, language, or behavior

For this study, it was important to understand cultural views of disability in Indian Country. There are 574 recognized tribes in the United States according to the Federal Register (*U.S. Dept. of the Interior Indian Affairs, 2020*), each of which has its own customs, cultures, and traditions. The word “disability” does not have a literal translation in tribal languages (Vacc, DeVaney, & Brendel, 2003), and the closest meanings depend on the cultural context of the community (Weaver, 2015).

For example, the Hopi people from northern Arizona believe that any type of unwellness is brought on by disharmony in the body, mind, or spirit (Lovern & Locust, 2013). Alternatively, the Lakota (Sioux) tribe of South Dakota operationalize the term disability to mean the failure of a society to garner the resources necessary for all people regardless of their differences (Pengra and Godfrey, 2001). In most indigenous cultures, physical and developmental disability are understood in a way that aligns with the Social Model of Disability in which the onus of the problem is on society rather than the individual who has a disability or her/his family (Goering, 2015; Leib-Neri, 2015).

Regardless of the way disability is perceived, data indicate that American Indians and Alaska Natives (AI/AN) have the highest prevalence of disability (about 30%) of all racial and ethnic groups in the United States (Wolf, Armour, & Campbell, 2008; Smith-Kaprosy, Martin, & Whitman, 2012, Turner Goins, Moss, Buchwald, & Guralnik, 2011; *Disability Impacts All of Us, 2020*).

Table 1. Prevalence of Specific Types of Disabilities among AI/AN by Age Group

Age	Hearing	Vision	Cognition	Mobility	Self-Care	Independent Living
18-44 years	3.5%	3.8%	18.8%	8.6%	2.3%	8.4%
45-64 years	14.3%	11.5%	23.9%	33.3%	10.3%	16.6%
≥ 65 years	25.3%	8.9%	17.0%	37.5%	10.0%	14.9%

Colonialism and the Theft of Native Land

Present conditions are always connected with history. Since 1492, when Christopher Columbus arrived in the Americas, Indigenous people have suffered countless acts of violence and extreme injustice at the hands of European colonists including genocide, forced migration, and the theft of land.

For example, the passage of the Indian Removal Act, which was signed into law by Andrew Jackson in 1830, led to the Trail of Tears. Over a 20-year period, the United States government forcibly relocated about 60,000 Native Americans, including members of the Cherokee, Muscogee (Creek), Seminole, Chickasaw, and Choctaw nations, from their ancestral homelands in the southeastern USA to areas west of the Mississippi River that had been designated as 'Indian Territory.' The Cherokee removal in 1838, which was brought on by the discovery of gold near Dahlonega, Georgia, led to the death of more than 4,000 Cherokee. In addition to murdering tribal members, European settlers stole livestock, burgled communities, and occupied land that did not belong to them (*Trail of Tears, 2009*).

Land theft and forced removal occurred throughout the United States. In 2019, California Governor Gavin Newsome issued a formal apology to Native Americans, acknowledging the brutal genocide and “war of extermination” declared by the state’s first governor in 1851 (*The Guardian, 2019*, <https://www.theguardian.com/us-news/2019/jun/20/california-native-americans-governor-apology-reparations>).

Study Methodology

Literature Review

The first step in this study was a literature search and review, which was designed to identify articles addressing the following research questions:

1. What are the existing resources related to active transportation and accessibility for American Indians and Alaska Natives (AI/AN) with disabilities?
2. What are the existing walking and walkability advocacy efforts in tribal communities, how did they develop, and how is accessibility addressed in these efforts?
3. How do the current resources related to active transportation and accessibility for AI/AN people with disabilities reflect the “9 Guidelines for Disability Inclusion (*Commit to Inclusion, 2017*)?”
4. What are the characteristics of “typical” disability advocacy groups and “typical” transportation planning processes in tribal communities?
5. What are the gaps in resources and local capacity to conduct inclusive engagement in tribal transportation planning?
6. What are the current opportunities for developing more accessible places?

To answer these questions, the literature search analyzed articles published after 2000 and positioned within the United States and Canada, that were responsive to the following search terms:

- (“American Indian” OR “Alaska Native” OR “tribal”) AND (“walkability” OR “active transportation” OR “mobility”) AND “disability”
- (“American Indian” OR “Alaska Native” OR “tribal”) AND “disability”
- (“American Indian” OR “Alaska Native” OR “tribal”) AND “health”

This search yielded 37 articles, which are referenced throughout this white paper and listed in Appendix A.

Project Advisory Board

A “Project Advisory Board” (PAB) of subject matter experts was recruited to assist in the planning and implementation of the project. All members are professionals and advocates in (1) accessibility, disability rights, and inclusive practices and policies and/or (2) tribal community health, planning, transportation, and safety.

The PAB members’ scope of work was to:

- Participate in an initial “key informant” interview
- Provide guidance on the research activities and oversee development of the white paper
- Assist in planning and implementing a “National Stakeholders Meeting,” at which the white paper would be presented to a larger audience and an implementation plan developed
- Oversee the awarding of two mini-grants to advance inclusive planning in tribal communities



Hoskie Benally is a Diné (Navajo) spiritual leader, who resides in the town of Shiprock, NM. He spent much of his childhood with his grandparents, living in the traditional ways practiced for thousands of years by the Diné - his grandfather was a shepherd and his grandmother a weaver of rugs. At the age of 22, Hoskie went blind within a matter of weeks from Retinitis Pigmentosa. Now, as the Native American Disability Law Center's Community and Government Liaison, his work involves connecting tribal governments, regional communities, and other agencies with resources. Since 2009, he has also served on the Navajo Nation Advisory Council on Disabilities. Grounded in Navajo tradition and fluent in Navajo, Mr. Benally is an experienced cultural instructor.



Sheri Bozic has worked as a Planning and Transportation Director for several New Mexico Pueblos since 2014. She currently oversees the planning, design, and construction of transportation and community infrastructure projects for the Pueblo of Jemez. Ms. Bozic has managed the preparation of Tribal Long-range Transportation Plans and Transportation Safety Plans, and is now working on the Pueblo of Jemez Pedestrian Trails and Bikeways Facility Plan. She is also overseeing the planning and design of a 2-mile pedestrian trail to be constructed along the NM Highway 4 at the Pueblo of Jemez. She has written many successful grant applications resulting in millions of dollars of grant funding for Tribal infrastructure projects.



Kelly Buckland is a person with a disability who has been actively involved in disability issues since 1979. He has served on the Idaho Developmental Disabilities Council and the State Employment and Training Council, and has worked on issues affecting people with disabilities including passage of the Personal Assistance Services Act. Kelly has testified before Congress on issues such as universal health care, Fair Housing and appropriations for centers for independent living. He has been honored with numerous awards, including the United Vision for Idaho Lifetime Achievement Award, and induction into the National Spinal Cord Injury Hall of Fame. Kelly is currently employed as the Executive Director of National Council on Independent Living.



Sharon Hausam is the Planning Program Manager for the Pueblo of Laguna. She has over twenty years of tribal planning experience emphasizing community-based practice across all planning areas. She was the project manager for the Pueblo of Laguna Bike and Pedestrian Route Plan, which has resulted in construction of a network of trails for the Pueblo. She is adjunct faculty at the University of New Mexico, where she teaches Planning on Native American Lands and is affiliated with the Indigenous Design + Planning Institute, and is an instructor for Northern Arizona University's Institute for Tribal Environmental Professionals. Dr. Hausam holds a Ph.D. in Urban and Regional Planning from the University of Wisconsin-Madison, where her research focused on Native American and non-Native interactions in planning processes.



As Director of the Rocky Mountain ADA Center, **Emily Shuman** leads the organization's daily operations including technical assistance calls, regional training coordination, information dissemination and more. Having worked for the organization since 2018, she is also the Center's spokesperson, contributing op-ed pieces and informational articles to the local, regional, and national media, and producing a podcast which features many nationally recognized guests including Senator Tammy Duckworth and attorney/advocate/writer Haley Moss. Emily has passion for empowering and working with businesses and individuals so they can obtain a clear understanding of their rights and responsibilities under the Americans with Disabilities Act.



Claire Stanley is beginning a new position as a Public Policy Analyst with the National Disability Rights Network. Most recently, she served as the Advocacy and Outreach Specialist at the American Council of the Blind, where she lobbied on Capitol Hill to advocate for bills that will positively impact the lives of blind or visually impaired Americans, and provided direct advocacy support to persons facing discrimination or access needs. After receiving her law degree from the University of California Irvine in 2015, Ms. Stanley was a public interest legal fellow with Disability Right D.C. at University Legal Services. She trained businesses and organizations about the intricacies of the Americans with Disabilities Act for the Mid-Atlantic ADA Center. She is currently the co-chair of the Transportation Task Force for the Consortium of Citizens with Disabilities.

Other Key Informants

In addition to the members of the Project Advisory Board, key informant interviews were conducted with five other experts in the areas of accessibility, disability rights, inclusive practices and policies, tribal community health, planning, transportation, and safety.

All eleven of these semi-structured key informant interviews were conducted by videoconference or telephone and lasted about 60 minutes (see Appendix C for interview questions). After the conversations had been recorded and transcribed, Dedoose (an online qualitative analysis program) was used to conduct a thematic analysis of key findings.



Bill Botten serves as the U.S. Access Board’s Training and Technical Assistance Coordinator. The Access Board is an independent federal agency which develops and maintains accessibility guidelines and standards for the built environment, transportation vehicles, telecommunications equipment, and information technology under the Americans with Disabilities Act and other laws. With a degree in exercise physiology, Botten’s training experience includes hundreds of presentations over the last 30 years to local, state, and national audiences on injury prevention, disability awareness and sensitivity, and accessibility. He was part of a team that developed the new combined guidelines for the Americans with Disabilities Act and the Architectural Barriers Act, and he specializes in access issues related to recreation facilities and outdoor developed areas.



Garrett Brumfield is a personal coach, motivational speaker, and graduate of the Walking College. Born with cerebral palsy, Garrett’s early years were filled with hours of physical therapy and several surgeries. When it came time to go to school, he did so with a walker, leg braces, and a teacher aid by his side. In middle school, he traded in the walker for hand crutches and even joined a recreation basketball team. As he worked to fully realize his own life potential, Garrett recognized that he wanted to help others do the same and founded Overcome Yours. More than personal motivation, Overcome Yours is a movement to change lives and change the world. In addition to empowering people to overcome their obstacles, Garrett leads accessibility audits of the built environment.



Michia Casebier is President of M.G. Tech-Writing, L.L.C. (MGT), a sole-proprietorship consulting firm which opened its doors in the tiny community of Cedar Creek on the White Mountain Apache Indian Reservation in 1993. MGT delivers grant writing, technical editing, multimodal transportation planning, and contract administration services for non-profits, school districts, tribal and municipal governments, and federal agencies. In 2006, the firm moved to Cottonwood, AZ and has opened branch offices in Tolleson, AZ and Fountain Valley, CA. A certified Safe Routes to School National Course instructor and a League of American Bicyclists League Cycling Instructor, Michia is committed to livable community development/design, and has extensive experience completing safety and built environment needs assessments for pedestrian and bicycle access along with Tribal Transportation Safety Plans.



HollyAnna DeCoteau Littlebull is the Tribal Traffic Safety Coordinator for Yakama Nation DNR Engineering Program. With thirty years of experience in the public safety sector, she has also worked as a medic, firefighter, police officer, and roads supervisor. Her previous appointments include Patient Representative for the U.S. Food and Drug Administration, Washington State Co-Chair for the Patient Advocate Foundation, and a Tribal Liaison for Patients/EMT/Nurses/Doctors in rural America. Hollyanna has authored and co-authored Washington State laws and tribal codes including, a critically needed child restraint law. She currently serves on the Advisory Committee for the Northwest Tribal EpiCenter Collaboration to improve the use of data relating to motor vehicle injuries.



DeAnna Quietwater Noriega is a poet, writer, teacher, legislative public policy advocate, and Peace Corps veteran, who is half Apache, a quarter Swan Creek Chippewa, and has been blind since age eight. Before retiring in 2016, she served as an Independent Living Specialist and facilitator of the Vision Impairment and Blindness Exploration and Support (VIBES) Group at Services for Independent Living (SIL) in Columbia, Missouri. Deanna started teaching while in college when she was recruited by her Vocational Rehabilitation counselor to give one-on-one instruction to persons who were newly blinded. According to a 2009 interview, “Deanna has never felt disabled or broken—at least no more than a short person having to use a ladder to reach a high shelf.”

Research Findings

Summary of Findings

Based on a comprehensive literature review and key informant interviews with the eleven subject matter experts listed above, a number of themes emerged in response to the research questions.

First, people with disabilities in tribal communities have to navigate a system of intersecting barriers. Physical barriers to mobility, a severe lack of funding to improve accessibility, and social and cultural attitudes towards disability all create challenges for someone wishing to live independently.

Second, while multiple effective community outreach and engagement strategies exist, they are typically not employed intentionally in order to gather input from people with disabilities. This failure to implement inclusive planning processes results in planners and engineers making critical decisions about the design of a project without understanding the lived experience of someone who is blind or who uses a mobility device, for example.

Finally, the research yielded numerous ideas for best practices which should be used or should be used more often. These included participatory mobility audits, the creation of focus groups, and the careful selection of materials for trails and other surfaces.

Taking all of this information into consideration, key findings from the research have been organized into two categories – focusing on physical accessibility and inclusive engagement – in the next sections.

Accessibility in Tribal Communities

Many tribal communities lack basic infrastructure for walking, biking, and rolling
Tribal governments do not always have jurisdiction over the roadways within their communities
The Americans with Disabilities Act of 1990 (ADA) is not consistently enforced in Indian Country
Available funding often does not prioritize safety or accessibility for active travel

Inclusive Engagement with People with Disabilities

Intentional outreach efforts to engage people with disabilities in planning processes are rare
Public health data and research into transportation needs for people with disabilities are lacking
Many tribal communities do not have any organized advocacy for people with disabilities

After that, a case study which illustrates many of these findings in a single tribal community (Pueblo of Jemez, NM) will be presented. Then, finally, a list of recommendations distilled from the interviews and literature search will be issued.

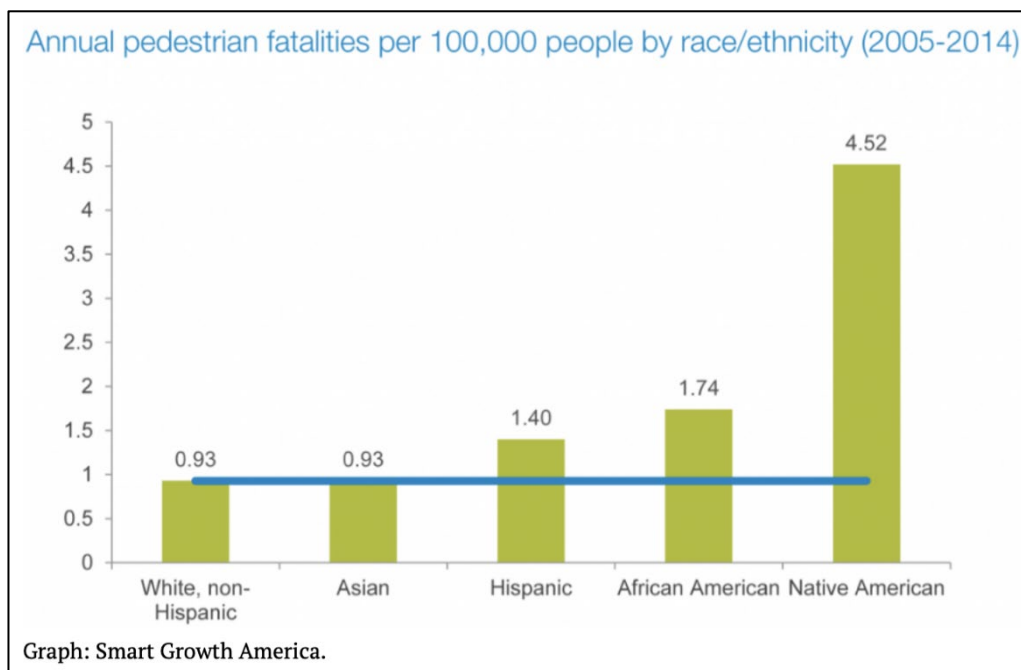
Accessibility in Tribal Communities

Many tribal communities lack basic infrastructure for walking, biking, and rolling

A common reality in Indian Country is a rural land-use and transportation pattern, which includes high-speed highways cutting through communities, a lack of safe sidewalks, and limited lighting (*Walking and Bicycling in Indian Country: Safe Routes to School in Tribal Communities; Zaccaro, Chafetz, & Schonfeld, 2019*).

Despite inadequate pedestrian infrastructure, community members of all ages and abilities are walking, biking, and rolling, often long distances, to reach their schools, clinics, and other destinations (*California Safe Routes to School Technical Assistance Resource Center, 2015; Dang, Fearer, Alfsen, & Cooper, 2015*). Because these trips typically involve crossing or traveling along busy state and county highways, they are frequently exposed to vehicles traveling at hazardous speeds (*California Safe Routes to School Technical Assistance Resource Center, 2015*).

One of the leading causes of death among American Indians and Alaska Natives is motor vehicle crashes (*Tribal Transportation Strategic Safety Plan, 2017*). Another study found an association between vehicle-related deaths for tribal members living in rural locations, including those off the reservation (*Pollack, Frattaroli, Young, Dana-Sacco, & Gielen, 2011*). From 2010 to 2014, pedestrian deaths represented 11% of all fatal crashes in tribal areas and, of these pedestrian fatalities, 77% occurred in or along a roadway, and not in a designated crosswalk or intersection (*Tribal Transportation Strategic Safety Plan, 2017*).



Native people are vastly more likely to be killed while walking than any other racial/ethnic group, with a “per capita” pedestrian fatality rate more than four-and-a-half times the national average (*Smart Growth America, Dangerous by Design, 2016*).

Tribal governments do not always have jurisdiction over the roadways within their communities

Tribal communities often consist of a patchwork of jurisdictions. As a result, the processes for planning, designing, permitting, and funding improvements to streets and highways may involve complex and opaque interactions among the tribal government, county government, and/or the State Department of Transportation (DOT) (*Complete Streets on Indian Reservation: A Clear Need*).

For example:

- Many tribal communities are bisected by State highways carrying large volumes of speeding traffic and creating a dangerous barrier for pedestrians and people with disabilities – however, in order to install a crosswalk or add lighting, for example, tribal leaders must obtain approval from the DOT, which can be challenging (*Rights-of-Ways Across Indian Lands, 2009*).
- In order to qualify for federal Bureau of Indian Affairs (BIA) funding, a road must be listed on the BIA's National Tribal Transportation Facility Inventory (NTTFI), which may not be true for some tribal-owned roads, and alternative funding is in very short supply.

With effective engagement and communication between jurisdictions lacking, this often means critical projects are not built.

The Americans with Disabilities Act of 1990 (ADA) is not consistently enforced in Indian Country

In general, the Americans with Disabilities Act of 1990 (ADA) does not apply in Indian Country (*Davis, n.d.; Southwest ADA Center, 2003*).

Mirroring the complex patchwork of jurisdictions, the legal framework is confusing and inconsistent:

- Title III of the ADA, which prohibits discrimination of people with a disability from any place of public accommodations, gives the U.S. Attorney General the power to file a civil lawsuit to urge a tribe's compliance with the regulation (*FLA. PARAPLEGIC, ASS'N v. MICCOSUKEE TRIBE OF FLORIDA, 1999*).
- State governments do have to follow the ADA, even if the road is on tribal lands, and so the law does apply to DOT highways and other projects using federal funding.

Therefore, protections for Indigenous people with disabilities varies from community to community. For example, The Navajo Nation passed a Civil Rights Act in 2018 which mirrors the ADA by requiring that Navajo people should not be discriminated against and should be given every opportunity to participate politically, economically, and socially in the Navajo Nation (*Resolution of the Navajo Nation Council, 2018*).

Section 504 of the Rehabilitation Act of 1973 states that no individual should be excluded from participating in any program or activity receiving federal financial assistance or by any program or activity conducted by any Executive agency or by the United States Postal Service (*Office of the Assistant Secretary for Administration & Management, n.d.*). In general, the Rehabilitation Act does not apply to tribal agencies that do not have an agreement with a state agency to conduct a vocational

rehabilitation program, although it may still apply through the Bureau of Indian Affairs, as a federal agency providing a program or activity to individuals (*Southwest ADA Center, 2003*).

Finally, the Individuals with Educational Disabilities Act and Every Student Succeeds Act (*Thornton, Bezyak, & Blair, 2019*) also protects tribal members with disabilities, although this law is often tied specifically to education and does not extend beyond the boundaries of educational facilities.

Available funding often does not prioritize safety or accessibility for active travel

Key informants and members of the Project Advisory Board explained that funding for safety and accessibility projects is difficult to acquire.

Most federal transportation grants are provided for the construction and expansion of roads for automobiles. When funds are set aside for pedestrian, bicycle, and accessibility improvements, the cost of maintenance often becomes an unexpected and unplanned-for financial burden and the quality of trail surfaces degrades and deteriorates.

This problem was also widely reported in project reviews and in the literature (*California Safe Routes to School Technical Assistance Resource Center, 2015*).

Inclusive Engagement with People with Disabilities

Intentional outreach efforts to engage people with disabilities in planning processes are rare

Outreach and engagement with people with disabilities is a vital component of creating a safe and inclusive built environment.

However, key informants and members of the Project Advisory Board reported a lack of intentional community engagement efforts to reach people with disabilities in Indian Country. Similarly, very few references to the involvement of people with disabilities in project planning and design were found in the literature, despite a comprehensive document search and review process which included key words such as “disability,” “active transportation,” “built environment,” and “tribal community.”

Most articles made no mention of any engagement, needs assessment, or design considerations for people with mobility, auditory, or visual disabilities, and a review of active transportation projects in tribal communities suggests that people with disabilities are considered as an afterthought.

Nevertheless, a variety of inclusive engagement strategies is available, such as polling/surveys, community meetings, focus groups, walkability/accessibility audits, to raise awareness of current built environment conditions and inform planning and design for improvements.

Public health data and research into transportation needs for people with disabilities are lacking

Another challenge for creating inclusive planning processes is the lack of available data about American Indians and Alaska Natives with disabilities and their mobility needs.

A lack of accurate data on disability and all aspects of public health in tribal communities has been noted in the literature (*Tribal Transportation Strategic Safety Plan, 2017; California Safe Routes to School Technical Assistance Resource Center, 2015*). Additionally, it is widely believed that Native people are severely undercounted in public health surveillance systems.

Finally, according to the literature review, there has been very little research exploring the intersection of disability, walkability, active transportation, and the built environment in tribal communities.

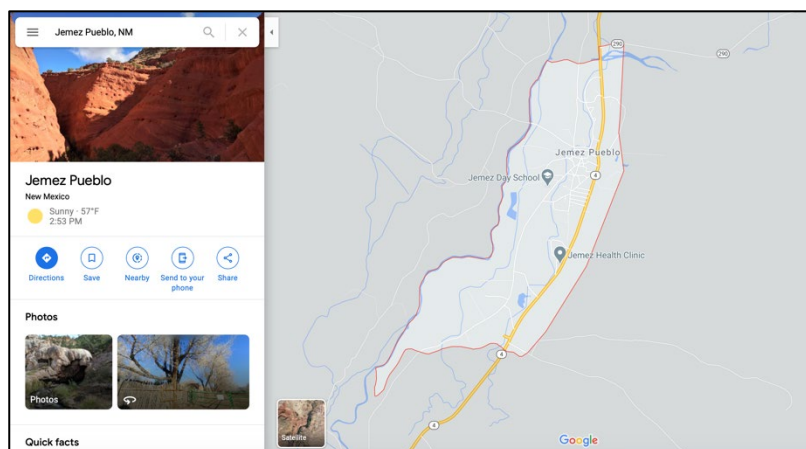
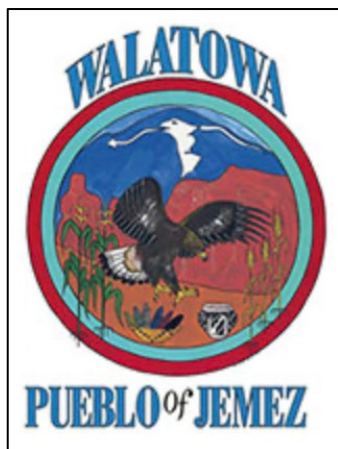
Many tribal communities do not have any organized advocacy for people with disabilities

The literature search revealed only two advocacy groups representing tribal people with disabilities, neither of which is established and active in a specific community.

The Native American Disability Law Center, for whom Project Advisory Board member Hoskie Benally serves as Community and Government Liaison, advocates for the rights of Native Americans with disabilities in the Four Corners area of Utah, Colorado, New Mexico, and Arizona (<https://www.nativedisabilitylaw.org>). And the Native American Advocacy Project focuses on the nine tribal nations in South Dakota, providing support to Native American persons with all types of disabilities and their family members in system planning, decision-making, networking, advocacy, and service development for these populations.

There are other groups whose mission includes advocating for the disability rights of Native among a more general range of rights.

Case Study: Pueblo of Jemez



Population: Over 3,400 tribal members

Location: About 50 miles northwest of Albuquerque, NM

The community of Pueblo of Jemez lies alongside the Jemez River in an area which has been inhabited for more than six hundred years. In the middle of the last century, New Mexico Highway 4 was carved through the village, separating most of the residences on the west side from the high school and other community institutions. With no sidewalks or crosswalks, and tens of thousands of high-speed vehicles daily, NM-4 creates an inaccessible and extremely hazardous barrier to mobility. Most of the other roads and paths are unpaved, creating another challenge for people with disabilities.



Sheri Bozic is the Director of Planning and Development for Pueblo of Jemez, and a member of the Project Advisory Board (PAB) for this *Inclusive Planning in Tribal Communities* white paper. She led recent initiatives to develop a Pedestrian Trails and Bikeways Master Plan, apply for federal funding for a Multi-Use Pedestrian Trail, and launch a Safe Transportation Initiative. In PAB meetings and a key informant interview with white paper author Yamelith Aguilar, Sheri shared her observations and suggestions regarding accessibility and inclusion of people with disabilities.

Existing conditions:

- *You see a lot of people walking on the shoulders or the sides of roads in Indian Country and there are very few designated facilities for people with disabilities.*
- *We have an existing trail that was constructed here for one specific tribal member who uses a wheelchair, to help them get from their home area to the clinic and tribal administration building.*

Compliance with the ADA:

- *Many footpaths in Pueblo of Jemez are unlikely to meet ADA standards and may not be accessible for all users.*
- *Although compliance with the ADA is not legally required for all projects, the Pueblo wants to make the community as accessible as possible.*
- *Because the Multi-Use Pedestrian Trail project has received federal funding, ADA compliance is required in this case and ADA guidance has been provided.*
- *An accessible boardwalk will be designed and constructed for the steepest part of the trail.*

Previous engagement strategies:

- *For one project, we did a focus groups with the seniors at the senior center during the lunchtime hours.*
- *In New Mexico, native people love to gather for meals and create community, so we always have food when we hold meetings in the evening.*
- *It's important to create a warm and welcoming environment – we organize raffles and keep people engaged.*
- *Polling has been the most successful strategy – people are more willing to share their opinion if it is anonymous.*



Plans for the future:

- *Sheri believes the Pueblo of Jemez should go further than just satisfying the ADA and must be proactive about including people with disabilities.*
- *She plans to expand inclusion in current and future projects such as the Multi-Use Pedestrian Trail and the repaving of clinic parking lots with more intentional outreach to people with disabilities.*
- *Inclusive engagement efforts may consist of focus groups, a community survey about accessibility and safety priorities, an interactive map activity, and community meetings.*

Challenges:

- *At present, Sheri is unsure how many people with disabilities reside in Jemez, but is identifying the people and groups, such as vocational rehabilitation centers, to engage.*
- *A handful of community members have concerns – they want to keep the character and aesthetic of tribal land, and not turn the Pueblo into the City of Albuquerque by paving everything.*

Recommendations

Summary of Recommendations

As stated earlier, the purpose of this project is to advance inclusion of people with disabilities in transportation planning for tribal communities. In order to expand mobility and increase safety for people with disabilities, the accessibility of the built environment must be improved, and this can be achieved by making public policy, planning, and design processes more inclusive.

During the fall of 2020, research findings from the literature review and key informant interviews were analyzed and discussed by the Project Advisory Board, leading to several specific recommendations for action. Addressing the problems that have been identified will take the combined effort of a number of different groups, including:

- People with disabilities
- Advocates for people with disabilities
- Planning, engineering, and transit professionals
- Community Health Representatives
- Elected and appointed officials

Specific recommendations have intentionally not been developed for each of these groups (“Recommendations for Advocates,” “Recommendations for Planners,” etc.) because implementation will require teamwork and coordination. Instead, they have been organized into categories relating to phases of the work – community assessment; advocacy, planning, and policy; and engineering design.

Community Assessment

Organize mobility audits

Conduct more research into the prevalence and needs of people with disabilities

Incorporate local data into state and federal funding applications

Advocacy, Planning, and Policy

Build a local advocacy movement

Design an inclusive and accessible public engagement process which uses a variety of strategies

Develop a Built Environment Mobility Improvement Plan for the community

Follow ADA Guidelines

Engineering Design

Utilize materials that make trail surfaces accessible

Ensure projects address accessibility for people with all types of disabilities

Incorporate cultural elements into the design of a mobility projects

Following publication of this white paper, two \$2,500 mini-grants will be awarded to communities or groups which present credible proposals for implementing some of these recommendations and advancing inclusive planning in tribal communities.

Recommendations for Community Assessment

Organize mobility audits

An excellent starting point for planners, Community Health Representatives, people with disabilities, and advocates is to organize a program of mobility audits.

A mobility audit is a specialized type of walkability audit which focuses on mobility barriers and solutions for people with disabilities. It is recommended that a small group, including at least one person with a disability, plans and leads the mobility audit. First, decide where to conduct the audit – this may be a place where mobility barriers are encountered by people with disabilities, or the location of a project which is already being planned. Next, explore the area on foot and by mobility device in order to plan a route for the audit, identify specific barriers and safety concerns, and start brainstorming solutions. Finally, set a date and time for the audit and invite people to participate.

It is important to gather a diverse group of community members and public officials for the mobility audit. If possible, invite individuals with mobility, visual, auditory, and developmental disabilities to participate in the audit. Each person with a disability experiences the world differently and it is very instructional for those currently without any disabilities to observe how various aspects of the built environment make it easier or more difficult to get around. Planners, engineers, and elected officials should participate so they have a complete understanding of well or poorly certain designs work.

Finally, take notes, photographs, and/or video of the mobility audit, in order to educate others through online or in-person presentations. AARP and various other organizations have published useful tool kits which include checklists and examples of walkability and accessibility features (*AARP Walk Audit Tool Kit and Leader Guide, 2016*).

Conduct more research into the prevalence and needs of people with disabilities

Tribal planners need reliable information about the people who will be using public facilities in the community. Unfortunately, as mentioned earlier, there is a lack of available data about disability and public health among American Indians and Alaska Natives.

Therefore, it is recommended that planning and public health professionals conduct systematic investigations of the prevalence and specific needs of people with disabilities in tribal communities. Epidemiological studies of the entire spectrum of physical and developmental disabilities would provide valuable information for engaging with people with disabilities. Research into the type of

facilities which improve mobility and safety (such as curb cuts and tactile warning surface) would give engineers a more robust understanding of ways to ensure the built environment is safe and accessible for everyone. Design manuals developed specifically for tribal communities would help disseminate best practices.

Planners should also participate in or take the lead in organizing mobility audits, as described above. Observing how individuals with disabilities navigate an existing project site will help build political will and technical skills for creating accessible public spaces. For example, it is important to add firm edges along one side of a walkway so people with visual disabilities have a guidepost to follow. Detectable warnings, such as “truncated domes,” should be provided whenever a walking path is about to cross a vehicular road. For trails, an audio component can help with wayfinding and identifying features of interest.

Federal, State and other sources of funding should be made available to tribal governments to support all of these activities.

Incorporate local data into state and federal funding applications

Applications for federal and state grants should include local data, such as crash statistics, fatality reports, and active transportation road usage. Fatality data can be found in the Fatality Analysis Reporting System (<https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars>) and counts of pedestrians, wheelchair users, and cyclists are often conducted by local community members or local college students.

Funding opportunities are available through state agencies. For example, the Active Transportation Program in California provides funds to federally recognized Native American Tribes for planning activities, non-infrastructure community programs, and infrastructure projects, including quick-build demonstration projects (*Active Transportation Program Guidelines, 2020*). In addition, federal funding is available to tribal governments under the FAST Act for pedestrian and bicycle facilities, recreational trails, safe routes to school projects, community improvement, and environmental mitigation projects (*Fixing America's Surface Transportation Act or "FAST Act", 2016*).

Finally, be sure to reference planning documents such as a Built Environment Mobility Improvement Plan (see below) and provide details of the inclusive community engagement processes that led to the creation of the plans.

Recommendations for Advocacy, Planning, and Policy

Build a local advocacy movement

People with disabilities and advocates for people with disabilities in tribal communities should organize to encourage improvements to better meet their mobility needs.

A local advocacy movement can be launched by building partnerships between interested individuals, community groups, and tribal government programs such as housing, public health, elderly services, vocational rehabilitation, social services, and colleges. Other professional groups to engage include personnel with the Tribal Transportation Program, Tribal Transit Program, and Planning Department.

Present educational and informational programs about the mobility challenges which confront people with disabilities every day, and how some communities are addressing these challenges by making their planning processes more inclusive. Establish an advisory group of community members including people with disabilities to help inform the next project planning process.

The goal of these efforts is to increase awareness of the need to improve mobility and access for people with disabilities among tribal planners, engineers, and policymakers. Facilitators of community engagement efforts in tribal communities should be made aware of how to reach out to people with disabilities and their families, so their voices are included in the planning process.

Design an inclusive and accessible public engagement process which uses a variety of strategies

Public engagement is an essential component of planning activities in tribal communities and elsewhere. However, if the engagement process is not intentionally designed to be inclusive and accessible, the voices and experiences of people with disabilities and other marginalized groups are likely to be excluded.

Community engagement methods and materials must be developed with an understanding of all of the different types of disabilities. There is no “one size fits all” approach because people experience disabilities related to cognition, mobility, hearing, vision, independent living, and self-care, among others. For example, project webpages should be accessible to screen readers and have easily adjustable font sizes, contrast, and brightness, while live and recorded presentations should be accompanied with sign language interpretation whenever possible.

One of the most important components of any engagement strategy is the community meeting. When scheduling a community meeting, remember to observe other events, religious holidays, and ceremonies. Create a warm and welcoming environment at the meeting and utilize a variety of community engagement methods which are accessible to people with disabilities. Make sure there is an explicit purpose for each activity and use simple and informative questions.

Here are some “best practices” for effective public engagement in tribal communities, which emerged from the literature review and discussions with key informants:

- Incentives are often used to increase participation in a community meeting. Providing gas vouchers can help residents attend the meeting without an undue financial stressor.

- Breaking bread together helps everyone feel at ease. Community meetings can begin with a meal to help participants and organizers connect with each other in a relaxed and informal way. The food can be provided by the meeting facilitator or as a “potluck-style” meal.
- A focus group is an effective tool for gathering community input data. A peer group of individuals engages in dialogue with a facilitator, without anyone feeling the pressure of being the only person in the room. People from the same community but with different accessibility needs can share valuable insights about their specific experiences and needs for the built environment.
- “Talking Circles” originated in indigenous communities. Gathering into a circle inspires a sense of communion and interconnectedness, and encourages respect, dialogue, and the co-creation of learning content. When each person has her or his turn to speak, all voices are heard in a respectful and attentive way, and participants experience a rich sense of identity and interaction.
- Polling and surveys provide an anonymous avenue for public input, which is effective in determining the needs of a community and understanding how residents feel about certain aspects of a project. Confidentiality increases the comfort level for individuals sharing their specific disability needs with project planners.
- Media engagement strategies such as newspaper articles, radio show promotions, social media posts, and mailers to people’s residences can help raise awareness of a project among people with a diverse range of ages and abilities.

Finally, it is important to incorporate the native language or languages when conducting any community engagement activities. Although English is widely spoken in many tribal communities, key project documents should be developed in a dual-language format and interpreters (as well as sign language interpreters) should participate in community meetings whenever possible.

Develop a Built Environment Mobility Improvement Plan in partnership with people with disabilities

After completing an inclusive engagement process, planners should work with community advocates and people with disabilities to develop a Built Environment Mobility Improvement Plan.

Use mobility audits to conduct an initial needs assessment of the community which centers the experience of people with disabilities. Based on the information gathered, identify a few specific place-based projects which will have the most beneficial impact for access and mobility. Over time, and in conjunction with ongoing inclusive engagement activities, develop a comprehensive plan for built environment improvements, which will enable people with disabilities to navigate their community independently. When the Built Environment Mobility Improvement Plan is complete, including a time frame and funding strategy, it should be formally adopted by the tribal council or governing body. In this way, the plan will serve as a guiding document for creating a safe and inclusive built environment for people with disabilities.

By creating a Built Environment Mobility Improvement Plan or Active Transportation Plan, communities will be much better prepared to apply for federal and state funds for implementation.

Follow ADA guidelines

The Americans with Disabilities Act of 1990 (ADA) is a civil rights law that prohibits discrimination against individuals with disabilities in all areas of public life, including jobs, schools, transportation, and all public and private places that are open to the general public. The purpose of the law is to make sure that people with disabilities have the same rights and opportunities as everyone else.

Whether or not compliance with the ADA is legally required for a particular project in a community, tribal policymakers, planners, and engineers should be familiar with ADA guidelines and follow them whenever possible, because they represent best practices

Recommendations for Engineering Design

Utilize materials that make trail surfaces accessible

Trails and other outdoor recreational spaces should be constructed with surfaces which allow safe travel for wheelchairs, scooters, and other mobility devices, and which do not require much maintenance.

The National Center for Accessibility found that using “Three-Quarter Inch Minus” limestone aggregate, Klingstone 400 soil stabilizer, and StaLok stabilizer kept a path firm and stable more consistently than other materials (*Botten, Nicole, & York, 2014*). The firmness and stability of a path make it more accessible for individuals who use wheelchairs or walkers, and flatter surfaces enable people with disabilities to travel further distances.

Ensure projects address accessibility for people with all types of disabilities

Project engineers should consider a wide range of functional design elements which improve accessibility.

For example, audible pedestrian signals and tactile street warnings are very important for people with visual disabilities, and enhanced pedestrian lighting and sidewalks are mitigators of vehicle-related deaths. The Outdoor Developed Areas Final Rule lists five elements that should be listed on all trail signage: length of the trail or segment, typical and minimum tread width (width of the walking surface), typical and maximum running grade (steepness of the path ahead), typical and maximum cross slope (side-to-side slope), and type of surface (*Botten W., 2013*). This information helps people with disabilities understand whether they can safely use the facility.

Geographic information system (GIS) mapping can also support transportation planners as they develop mobility projects which are designed for people with disabilities in tribal communities. For example, the Chickasaw Nation, Navajo Nation, and the Confederated Tribes of Siletz Indians utilize GIS technology to manage natural resources, investigate public health issues, determine how to best use ancestral lands, and preserve history (*Taylor, Gadsden, Kerski, & Guglielmo, 2017*).

Incorporate cultural elements into the design of mobility projects

The design of mobility and active transportation projects should include the voices and opinions of tribal residents as well as those of people with disabilities.

Tribal historians, cultural anthropologists, naturalists, and artists can contribute substantial improvements to the design of trails and other infrastructure projects. Amenities such as native plantings, benches and shade stops, trailhead signage, and informational kiosks (in the native language and English) all enhance the user experience, especially when they incorporate cultural elements such as tribal symbols and words (*Adams & Scoggin, 2011*).

Conclusions and Next Steps

This white paper has presented the results of research into the extent to which people with disabilities are included in planning processes in tribal communities and made recommendations for making those processes more inclusive.

A comprehensive literature search, key informant interviews, and the work of a Project Advisory Board of subject matter experts, have yielded a number of findings:

- Many tribal communities lack basic infrastructure for walking, biking, and rolling
- Tribal governments do not always have jurisdiction over the roadways within their communities
- The Americans with Disabilities Act of 1990 (ADA) is not consistently enforced in Indian Country
- Available funding often does not prioritize safety or accessibility for active travel
- Intentional outreach efforts to engage people with disabilities in planning processes are rare
- Public health data and research into transportation needs for people with disabilities are lacking
- Many tribal communities do not have any organized advocacy for people with disabilities

By bringing together tribal planners and engineers with national advocates for people with disabilities in a diverse Project Advisory Board, and engaging these members in problem-solving, several recommendations for improving inclusion of people with disabilities in tribal planning processes have been proposed:

- Organize mobility audits
- Conduct more research into the prevalence and needs of people with disabilities
- Incorporate local data into state and federal funding applications
- Build a local advocacy movement
- Design an inclusive and accessible public engagement process which uses a variety of strategies
- Develop a Built Environment Mobility Improvement Plan for the community
- Follow ADA Guidelines
- Utilize materials that make trail surfaces accessible
- Ensure projects address accessibility for people with all types of disabilities
- Incorporate cultural elements into the design of a mobility projects

The next steps in this project are to hold a National Stakeholders Meeting early in 2021, at which the high-level outline of an Implementation Plan will be developed. Following the National Stakeholders Meeting, two \$2,500 mini-grants will be awarded to communities or groups which present credible proposals for implementing some of the white paper's recommendations and advancing inclusive planning in tribal communities.

About the Author

Yamelith Aguilar is a culturally responsive evaluator and researcher, who is passionate about addressing social inequities through evidence-based efforts. Currently, her work involves examining the experiences of women in the technology ecosystem. Yamelith previously worked for the Center for Disease Control and Prevention where she developed innovative evaluation methods to systematically measure the outcomes of emergency preparedness training activities nationwide. She has worked on multiple active transportation projects focusing on increasing safety, mobility, and advocacy throughout California. Yamelith strives to uplift the voices of communities through evidence-based evaluation and research methods.



About the Editor



Ian Thomas is the State and Local Program Director with America Walks. In this role, he develops and delivers education programs for advocates, professionals, and elected officials, about the benefits of walkable communities and strategies to create them. From 2000 to 2013, Ian served as the founding Executive Director of the PedNet - Coalition of Columbia, MO, developing one of the largest Walking School Bus programs in the country and coordinating a campaign that led to Columbia adopting the first "complete streets" policy in Missouri. In 2013, and again in 2016 and 2019, Ian won election to the Columbia City Council, where he continues to advance healthy and walkable community policies.

About America Walks



America Walks is a national education and advocacy organization, working to increase walking and expand walkable communities across the U.S. Through monthly webinars, a robust communications program, Community Change grants, the Walking College, and place-based workshops, America Walks achieves its mission of advancing safe, equitable, accessible, and enjoyable places to walk and move by giving people and communities the resources to effectively advocate for change. This *Inclusive Planning in Tribal Communities* project was funded by a *Partnership for Inclusive Health Innovation* grant awarded to America Walks by the National Center on Health, Physical Activity, and Disability (NCHPAD).

About NCHPAD



Founded in 1999, the National Center on Health, Physical Activity, and Disability (NCHPAD) is a national resource and practice center that empowers communities, organizations and individuals through training, technical assistance, advocacy, thought leadership, health promotion, and health communication to create livable places, healthy people, and sustainable inclusion (CDC Grant # NU27DD001157).