

# **IN THEIR OWN WORDS: SUCCESS STORIES FROM THE GREAT LAKES NATIVE AMERICAN RESEARCH CENTER FOR HEALTH**

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*Abstract: In 2009, the Great Lakes Native American Research Center for Health (GLNARCH) set out to generate a promotional video that highlights the successes of the program. Ten GLNARCH interns were interviewed and filmed for participation in the promotional video using a documentary production style. During the editing and transcription process, interviewer responses were noted for relevance to theoretical frameworks—specifically, tribal critical race theory, mentoring, and cultural compatibility—which guided GLNARCH program design. Quotations were transcribed to illustrate these themes. Though the interviews were not intended as a formal qualitative analysis, powerful narratives that are relevant to participatory research emerged. The emergence of narratives that align with relevant theoretical frameworks suggests a novel methodology for a culturally responsive, participatory reporting system.*

## **INTRODUCTION**

The central goal of the National Institutes for Health (NIH)-funded Native American Research Centers for Health (NARCH) is to promote research by and for American Indian/Alaska Native (AI/AN) communities as well as to train AI/AN health professionals. There are 10 NARCH centers throughout the U.S., in Alaska, Arizona, Montana, North Dakota, Oklahoma, Oregon, Washington, and Wisconsin. It is generally understood that an effective way to reduce health disparities in Indigenous populations is to train health professionals from within these populations (Eschiti, 2004; Gracey & King, 2009; Thomas, Rosa, Forcehimes, & Donovan, 2011; Warne, 2006). Unfortunately, higher education often fails to resonate with Native students due to differences in Indigenous and Western perspectives on knowledge (Brayboy, Fann, Castagno, & Solyom, 2012). Retention of AI/AN students often suffers due to a sense that their cultures are out of place in higher education. Challenges to Indigenous education include

“culture shock” when moving to an urban setting to complete a degree, cultural incompatibility with Western-style education programs, and financial concerns (Braun, Browne, Ka’opua, Kim, & Mokuau, 2014; Brayboy et al., 2012; Gracey & King, 2009; Martin & Seguire, 2013; Thornton & Sanchez, 2010). These students often come from families where they are the first generation to attend college.

The Great Lakes Native American Research Center for Health (GLNARCH) program draws upon a coalition of tribal and academic organizations to improve health research and AI/AN education. GLNARCH is based at the Great Lakes Inter-Tribal Council located on the Lac du Flambeau reservation in northern Wisconsin and operates within the tristate (Michigan, Minnesota, and Wisconsin) Indian Health Service (IHS) Bemidji Area. Through a unique blend of education, research, and storytelling, the program has experienced great success. In this paper, we report how storytelling promotes self-determination for participants in a health sciences pipeline program, as well as provide qualitative data outlining strengths of the program. The stories provided an opportunity for an informal analysis as well as insights into different ways of knowing.

### **Health and Higher Education in the Bemidji Region**

The Bemidji Region is the most underfunded of the 13 IHS areas (Great Lakes Inter-Tribal Epidemiology Center [GLITEC], 2011). AI/AN health in the U.S. and the tristate area has improved since the 1950s (e.g., precipitous drops in infant mortality due to treatments for infectious diseases like tuberculosis; (U.S. Department of Health and Human Services, 1999). In spite of this progress, health disparities persist for AI/ANs. Nationally, the risk of obesity is 49% higher for AI/AN children (Pan, May, Wethington, Dalenius, & Grummer-Strawn, 2013). In the Bemidji Region, AI/AN mortality rates are higher than those of the total population after accounting for differences in population age (GLITEC, 2011). Furthermore, the Native population in Wisconsin demonstrates elevated morbidity rates for diseases such as heart disease and diabetes (Wisconsin Department of Health Services, 2005), and AI/AN mortality rates are significantly higher for all cancers, chronic liver disease and cirrhosis, diabetes, heart disease, influenza and pneumonia, nephrotic syndromes, suicide, and unintentional injury in the Bemidji Region (GLITEC, 2011).

Native students continue to be underrepresented in higher education. In the Bemidji Region, only 6.8% of the AI/AN population holds a bachelor's degree, compared to 16% of the general population, and only 3% hold a graduate degree, compared to 7.8% in the general population (GLITEC, 2011). GLNARCH grew from the realization that innovative approaches building upon the importance of relationships in AI/AN cultures are required to attract, foster, and maintain these students in research careers (Demmert, 2001). In addition to supporting research, GLNARCH boasts a strong Student Development Program to address these disparities.

Mainstream epistemology can lead to problematic interpretations of Indigenous educational outcomes (Kitchen, Cherubini, Trudeau, & Hodson, 2010). Non-Native researchers must walk a fine line when attempting to promote successful programs from a Western point of view. Not only should indicators of success incorporate AI/AN perspectives, but these indicators also must be constructed from participatory methods to honor the value of self-determination. This “decolonizing” of research methodologies (Braun et al., 2013) aims to empower Indigenous participants as researchers. Such methods are attractive to programs like NARCH because they acknowledge historical trauma, life-course perspectives, and phenomenology.

One of the challenges for Indigenous students in North America is that unexamined racial and cultural assumptions are endemic to society and are ingrained in contemporary views of education (Brayboy, 2005; Demmert, 2001; Kitchen et al., 2010). Tribal critical race theory outlines many challenges with research and education in Indian Country. Historical distrust resulting from dispossession, threats to sovereignty, liminal societal space, and threat of assimilation exert social forces on tribes (Burger & Gochfeld, 2011; Hoover et al., 2012; Tobias & Richmond, 2014) that can interfere with cooperative progress. Tribal critical race theory seeks to construct an interpretation of reality by helping individuals to name their reality through storytelling and counterstorytelling (narratives; Haynes Writer, 2008). This process provides a framework by which a culture (AI/AN) may represent itself in a self-determined manner. These theories, in which the effectiveness of programs and interventions is augmented by matching the process onto cultural patterns, provide useful principles to guide programs such as NARCH. As the program evolves, improved methods of evaluation and understanding will emerge. Building narratives via digital storytelling is a part of this evolution. Cultural compatibility theories manifest in a variety of forms throughout the literature (Demmert, McCardle, Mele-McCarthy, & Leos, 2006).

Health research has seen an increased demand for practices that promote creative, narrative-based approaches. One example is digital storytelling. The digital storytelling method emulates oral traditions in sharing experiences and transferring information, and provides a medium for participants to contribute directly to knowledge production (Cameron, Crane, Ings, & Taylor, 2013). GLNARCH has used this model in the past to engage interns in the process of sharing and presenting their projects; it allows them to contextualize their work within their personal lives and culture. Digital storytelling, therefore, is a culturally responsive tool for research and health promotion programs, due to its emphasis on narratives. Other programs have used digital stories effectively to increase participation, promote healthy behaviors, and report the associated successes in Native populations (Cueva, Cueva, Dignan, Lanier, & Kuhnley, 2014; Cueva et al., 2013; Wexler, Gubrium, Griffin, & DiFulvio, 2013). Digital storytelling is similar to documentary filmmaking in that they both focus on narratives to convey information. Documentary films and other mass media have been demonstrated to reduce stigma and bias, facilitate discussion of difficult topics between health care providers and patients, and add societal context to educational efforts (Anderson & Austin, 2012; Clement et al., 2013; Ebor, Murray, Gaul, & Sutton, 2015; Jordan & Bonds, 2015; Thonon, Pletinx, Grandjean, Billieux, & Laroi, 2016). This paper presents evidence that these two processes (digital storytelling and documentary filmmaking) may be blended to create powerful inquiries regarding AI/AN health as well as culturally compatible educational programs.

### **GLNARCH Origins and Goals**

GLNARCH developed from interest in tribally driven health research programming. Tribal health leaders and health professionals possess knowledge of community health priorities, and are familiar with local culture, traditions, and concerns. They also seek relevant community health data. GLNARCH brings these professionals together with academic partners. This need was first identified during a strategic planning session held between the Wisconsin Tribal Health Directors Association and the Great Lakes Inter-Tribal Council Indian Health Program in the fall of 1999. GLNARCH focuses on interdisciplinary collaborations between academic and tribal communities to improve AI/AN health and ameliorate health disparities.

GLNARCH activities are designed to ensure multigenerational success in tribal student/professional development and health research. The GLNARCH program combines research and training to achieve the following program outcomes: 1) Provide infrastructure for community-based participatory research (CBPR) on AI/AN health disparities; 2) Implement a

student development pipeline programs to increase AI/AN student/professional leadership in the areas of biomedical, clinical, and behavioral research; and 3) Implement an evaluation process of GLNARCH efficacy and disseminate this knowledge. Researchers at GLNARCH have taken the unique step of filming documentary-style interviews on participants' experiences with the program to showcase the accomplishments to date.

The third GLNARCH goal—evaluation, dissemination, and reporting—has proven elusive for NARCH programs throughout the country (Caldwell & Hernes, 2014). Though the successes of NARCH are evident to the community, the most powerful benchmarks are difficult to portray adequately in the format of scientific writing. Narratives presented in digital film format are an increasingly popular tool, yet programs that use this method for reporting may experience complications. Gubrium and colleagues (2014), for example, identified a number of ethical challenges, including: fuzzy boundaries between public health practice, research, and advocacy, as well as issues regarding consent and inadvertent exposures to harm from sharing sensitive information. From a practical standpoint, it is challenging to integrate filmmaking and other digital arts with more analytical disciplines. Doing so requires adaptation of different forms of evidence to programmatic evaluation while maintaining a standard of rigor that matches scientific research.

The video production described herein presents an effort to explore these challenges. The narratives that emerged demonstrate clear progress toward the stated GLNARCH goals, reported by participants in their own words. The best practices and challenges shared here will help to guide other researchers as they strive to adapt to an ever-changing atmosphere that intersects the arts, community, public health, and academic research.

## METHODS

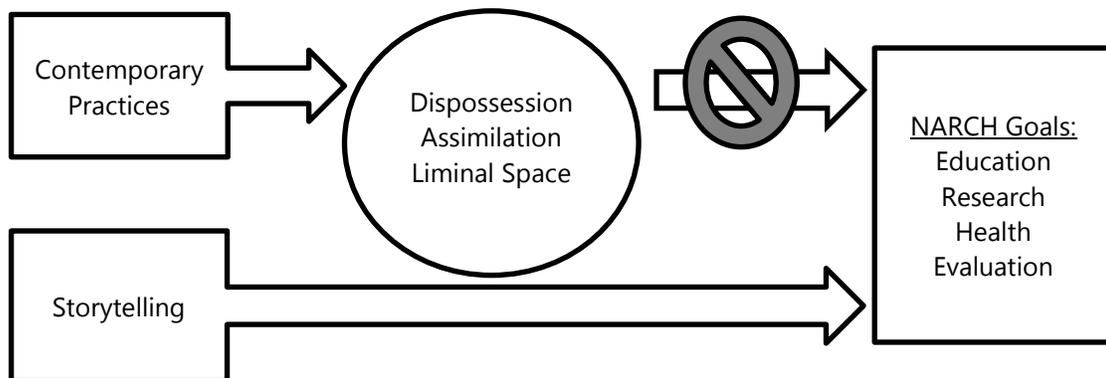
### **Sampling Framework: Description of Student Development Program (SDP)**

A key element of the GLNARCH SDP is to help students recognize the importance and feasibility of advanced education, as well as to develop the skills and academic background needed to do so. GLNARCH partners with the Mayo Clinic, Marquette University, University of Minnesota-Duluth, Concordia University of Wisconsin, University of Wisconsin (UW) campuses, and Medical College of Wisconsin to provide diverse opportunities for students in the GLNARCH SDP program. Over the years, GLNARCH has developed methodology for AI/AN student and professional development based on experience and a growing body of literature

(Jackson, Dellinger, Tornes, Poupart, & Dellinger, in press). This literature provides general recommendations for mentorship programs, as well as AI/AN-specific mentorship best practices. Key concepts include: service learning and student placement, mentorship, cultural congruence, epistemology, structured support, and community building (both cultural and professional).

Overall, the GLNARCH SDP follows a cultural compatibility framework as it applies to modern Indigenous perspectives (Demmert et al., 2006). The SDP program is implemented in four phases. Each phase provides hands-on experiences, networking, guidance, and financial support, depending on the age group (Figure 1). In the first phase, AI/AN students are invited to UW-Madison to participate in hands-on activities, meet faculty, and attend presentations from academic role models. In Phase II, approximately 20 students enroll in “The American Indian Student Scholars Program.” This summer program allows students to explore UW-Milwaukee, Concordia University, Medical College of Wisconsin, and Marquette University campuses to learn about college application processes and health science careers and to participate in hands-on science and cultural activities. In Phases III and IV, approximately 12 selected undergraduate students (sophomore through senior standing) and 8 graduate students enter a period of academic mentoring and summer research experience under GLNARCH. The students are paired with research mentors based on locations, shared student/researcher interests, and student career paths. For a more detailed description of the GLNARCH SDP, see Jackson and colleagues 2015.

**Figure 1**  
**Conceptual Model Illustrating**  
**Difficulties with Reporting Programmatic Success in Indian Country**



### **Data Collection: Promotional Video Interviews**

This project was declared exempt from 45 CFR Part 46 under the provisions of 45 CFR 46.102(d) by the IHS National Internal Review Board. During the summer of 2010, 1 GLNARCH mentor and 10 GLNARCH interns were interviewed and filmed for participation in a promotional video. The students are paid GLNARCH interns who volunteered to discuss their experiences. These 11 participants are registered tribal members. The current analysis includes statements from the 10 students. The video production team consisted of the current authors. Mr. Jackson served as the interviewer and producer, and Mrs. Poupart served as producer both by coordinating the interviews and in her capacity as the GLNARCH SDP coordinator. Dr. Dellinger served as cinematographer, editor, and writer. Post processing (conducted by Dr. Dellinger) was guided by the entire production team with input from the GLNARCH Community Scientific Advisory Committee and Wisconsin Tribal Health Directors.

Distinct from the digital storytelling process, these interviews followed a documentary filmmaking procedure in which the director/producer asked leading and open questions. Other interviewing techniques can appear analyzed and dissected, which conflicts with storytelling values (Simonds & Christopher 2013). Interviewees in a documentary are termed “the talent,” and are treated as such, which creates an empowering atmosphere for the storyteller. The students were encouraged to present an earnest expression of their personal experiences and to feel ownership of their stories. Powerful narratives that are relevant to participatory research emerged from the interviews. The GLNARCH video production 1) produced a form of participatory outreach (Dellinger, Jackson, & Poupart, 2015) that could be shared with tribal and academic leaders who then provided input on future iterations, and 2) provided qualitative data that bears relevance to NARCH program best practices. During the interviews, the interns were asked the following questions:

1. What are your experiences with the program?
2. Please describe your research project and the challenges that you encountered.
3. How did NARCH influence your journey through education?
4. How did it influence your professional development?
5. Please describe your feelings regarding the mentorship component.
6. Do you have any general comments and feedback on the program?

## Data Management and Analysis

The production team investigated all interviews for common themes and patterns. During the editing and transcription process, the production team noted interviewee responses for relevance to the theoretical frameworks that guided GLNARCH program design—cultural compatibility theory (Demmert, 2001; Demmert et al., 2006) and tribal critical race theory (Brayboy, 2005)—as well as general program strengths. This process was similar to a content analysis; the units of analysis are responses to the film director’s questions during participant interviews. We transcribed quotations to illustrate each of the four identified themes. Though not intended as a formal qualitative analysis, these methods form a template for a reporting system that promotes storytelling perspectives, participatory practices, and narrative success.

Once the first cut of the video was completed, it was presented at the Wisconsin Tribal Health Directors meeting for feedback. These meetings occur biannually in northern Wisconsin. The video has been featured regularly at these meetings since 2011 with updates in each year. At each showing, the tribal health directors and the GLNARCH Community Scientific Advisory Committee provided feedback for video production. Feedback was noted, and the video went through five iterations before arriving at the most recent draft, which is considered final (Dellinger et al., 2015).

## RESULTS

Participant responses may be categorized as the following main themes: 1) support for professional development via networking and mentoring, 2) participatory research that translates to community (“helping my people”), 3) self-determination and cultural solidarity through intergenerational success, and 4) validation and enhanced participation in education.

### Theme 1: Networking and Support

Student project topics included acculturation and identity in client/clinician relationships, community center development, diabetes, nutrition, and community/traditional gardening. All students indicated that participation in the NARCH program greatly enhanced their participation in school, as well as their professional development. The comments in this section all support the notion that GLNARCH has applied the Cultural Compatibility framework (as influenced by Tribal critical race theory) to its activities successfully. The intern responses demonstrate that GLNARCH provides social support, financial support, mentorship, and networking.

In all 10 cases, the interns affirmed the intended program benefits of mentorship, networking, and support. The mentor interview also conveyed these benefits. The students credited the mentors with promoting success in completing their degrees. In most cases, these mentors are themselves AI/ANs who provide examples of success in health research for the students:

I realize how important they [NARCH mentors] were in my life to guide me, to support me, to give me that wisdom and that love. And above all, that motivation to know that I can do it too. (Student 1)

What was most impressive to me was the mentoring process. I've always believed in the mentoring process, having mentors and mentees, working together for the benefit of everyone involved. (Student 2)

[My Mentor] has helped me gain perspective on where I want to go, not only as a culture teacher, but as someone who wants to support other educators that are Native and non-Native in integrating culture into the classroom. (Student 3)

It really gave us a way to connect to each other, to network, to see others, and to create that social support network. We all supported one another, looked out for one another, and wouldn't let each other fall. (Student 6)

In addition to linking Native students with Native mentors, GLNARCH provides regular access to health professional networks. The interns all acknowledged that the program gave them access to Native health professionals and networks that they otherwise would not have had.

I think it's really important that we have role models and we see people who are from our own background and share a history with us. And we see them in roles that we want to aspire to. And we see how they navigate those roles. Because it's not an easy thing because we're still a pretty [major] minority in academia, but for me it was really powerful making those relationships and continuing those relationships. (Student 1)

Through that [mentoring program] I gained a lot of supporting letters of recommendation to be admitted into medical school so those relationships there were very valuable. (Student 4)

I don't care what anybody says; every job I've gotten is from the connections I made with people [through NARCH]. (Student 5)

It got me involved with other Native professionals in the area. It was a good network for resources throughout tribal communities throughout the state and surrounding states. (Student 6)

The NARCH program kind of forced me to stepping into that world of research and connecting with people who were interested in the same things I was. (Student 7)

## **Theme 2: "Helping My People"**

Participants offered the following responses to the open-ended questions (i.e., general comments regarding the program). Though these benefits were assumed by the production team, the director did not necessarily seek these answers out. The comments were noted due to their relevance to Cultural Compatibility and Tribal critical race theory. Key aspects of these narratives include: benefiting the community, generational sacrifice, and self-determination. Indicating a common pattern, 8 of the 10 students expressed pride in the belief that their work with GLNARCH directly benefited their people. When later asked, the 2 who did not directly mention this theme acknowledged its importance.

So I feel that maybe I am coming to these points where I can begin to give back because I've had such wonderful examples to teach me what does that mean and what does that look like? (Student 1)

And for the most part I think that, at least for the two summers that I was in the program, the students conducted various forms of research within separate Native communities. So the research that they were doing often-times helped, directly helped, their community. (Student 4)

I could handle the classes and the other issues with the school because I had this job [NARCH intern] with other Indians and I was doing work that was meaningful for Native Americans. And so it wasn't like I was doing this assignment just to do an assignment, I knew that I was helping my people. (Student 5)

That gave me some real world experience and prompted me to get more involved in some science-based fields where Native Americans are needed. (Student 6)

I hope to go to public health school and become a nutritionist and work in a Native community somewhere. (Student 8)

I've presented at the Wisconsin Indian Education Association Conference and I've had the opportunity to present at the National Indian Education Association Conference, presenting the work that I've done through NARCH. (Student 3)

I became fluent in acculturation and identity and therapy, the types of things I think are important for Native American communities. (Student 7)

Most people in my family have diabetes so I wanted to see what could be done to include a diabetes education project in a community center. NARCH was able to provide me with that internship opportunity, something I probably wouldn't be able to get perhaps with another internship. (Student 9)

My internship project was through the department of public instruction. What I did was research how we are changing the social climate in the classroom for Native American youth... Through this program we were basically teaching teachers to work with Native American youth. (Student 10)

### **Theme 3: Self-Determination**

Intergenerational progress, solidarity, and self-determination emerged in various forms throughout the interview process. The students provided examples of sacrifices to promote economic mobility in the next generation and emphasized the importance of support from other Native people in their efforts:

My parents sacrificed so much to help us get where we are. They didn't have the kind of opportunities that we have. They didn't have the grants and the scholarships. (Student 1)

For me it was a real natural fit, kind of a Native style, being flexible, available, and honest. (Student 2)

My daughter also did the summer program at UW-Milwaukee in July, and she loved it. It gave her a lot of opportunities that she wouldn't have experienced otherwise. My daughter now is going to be taking her CNA class to become a certified nursing assistant and use that certificate to be able to work while she's going through college. (Student 9)

### **Theme 4: Validation and Enhanced Participation in Education**

In keeping with the programmatic goals of the GLNARCH SDP, we observed a theme of enhanced school participation. The enhanced participation seemed mostly to stem from validation of the idea that higher education was an achievable, worthy goal for AI/AN people. The students emphasized the empowerment that came from the realization that their efforts were supported and encouraged by programs such as GLNARCH and by the mentors.

I realize how important they [NARCH mentors] were in my life to guide me, to support me, to give me that wisdom and that love. And above all, that motivation to know that I can do it to. I come from a reservation and my background is humble but, I am a powerful person and each person is powerful and has

something to teach and something to give. And so, to this day, going through difficult challenges and times I remember the things that they taught me. I take those skills with me, the research skills, as much as the personal skills. (Student 1)

Another thing that I wanted to say was just how import NARCH is in validating me and the degree that I was seeking. And that, when I'd look around and didn't see any Indians [at my university] they'd be the ones to say "No we need you here, it's that much more important." And I'd hear that from the other NARCH interns and from my NARCH mentor as well as the NARCH staff. I felt like that validation was so important in making sure that I finished school and felt like what I was doing was important. (Student 5)

## DISCUSSION

### Implications

All students interviewed during filming reported favorable perceptions of the GLNARCH programs. The nature of the responses matched established theoretical frameworks that highlight cultural compatibility and Indigenous epistemology. The themes conveyed through these narratives match a priori assumptions that theoretical frameworks on mentorship and AI/AN perspectives (Brayboy, 2005; Demmert et al., 2006; Jackson et al., in press) could guide NARCH activities and help NARCH to achieve its goals. Interview questions were designed to report programmatic success. It was noteworthy that the students offered evidence that the underlying theoretical frameworks of GLNARCH were operating in their experiences. These narratives, therefore, provide unique evidence supporting the value of cultural compatibility and tribal critical race theory in planning GLNARCH programming and research.

Contemporary practices in academic science tend to follow an analytic style of epistemology that emphasizes process. In these practices, the primary method of reporting requires a peer review. Though this process does not necessarily contradict Indigenous epistemology, it is not representational due to a paucity of AI/AN peer reviewers who can offer a non-Western perspective. Through storytelling, tribal perspectives may be integrated into the academic process, without assimilating the Western culture itself. Figure 1 conceptualizes how

contemporary practices are impeded by challenges unique to working in Indian Country. Using storytelling as a narrative reporting tool can transcend the boundaries, allowing programs such as GLNARCH to report success in a participatory manner.

Through these narratives, AI/AN participants in GLNARCH and other programs may define their own experiences with health sciences. A process that incorporates storytelling is better equipped to address the sometimes paradoxical issues of assimilation when attempting to provide health science capacity to tribal populations. Though the resources associated with health research funding are desired, some tribal/cultural leaders fear the potential of cultural assimilation as a result of adopting Western practices. The narratives of the students, in their own words, simultaneously ameliorate these anxieties while expanding the role of Indigenous epistemology in health science. Perhaps most importantly, the documentary atmosphere instilled the students with the sense that they had a venue to express themselves. They therefore offered sincere narratives freely and emphatically. Filling the role of “the talent” rather than “study subject” matches the goals of tribal critical race theory, in which subjects characterize their experiences in their own words. They believe, correctly, that their personal message will have impact because documentary filmmaking is self-expression at its core.

### **Limitations**

The information presented here does not constitute a qualitative analysis. The themes are intuitively representative of attitudes in the population, but no quantitative estimate of generalizability is possible. The intent of this article is to demonstrate the value of blending assessment efforts with documentary filmmaking. We hypothesize that the process presented here could be leveraged to provide empowering and participatory data for future scientific inquiry.

### **CONCLUSION**

GLNARCH has demonstrated consistent success in promoting health sciences careers and research within the Bemidji Region since 2003. GLNARCH has placed 130 AI/AN students in research internships at both undergraduate and graduate levels, and Phase II has been implemented successfully with at least 20 AI/AN students annually since 2003 (Jackson et al., in press). Regarding research, previous NARCH projects (which include NARCH interns) have produced 20 accepted or published manuscripts, and 52 scientific presentations and/or posters.

These achievements have led to six non-NARCH grants totaling approximately \$4.1 million (Jackson et al., in press). This evidence of success is complemented by the qualitative information gained during the GLNARCH participatory filmmaking project.

To better understand methods for conducting research that center on Indigenous ways of knowing and self-determination, innovative forms of evidence must be considered. The incorporation of Indigenous epistemology has demonstrated success in other health science educational efforts (Dickerson et al., 2014; Martin & Seguire, 2013). Similarly, other efforts to employ cultural compatibility in AI/AN education have determined that participatory evaluation practices are necessary (Curran, Solberg, LeFort, Fleet, & Hollett, 2008; Martin & Kipling, 2006). It is clear that the interviews discussed here provide a unique and powerful insight into the strengths of NARCH programs that use Tribal critical race theory and Cultural Compatibility frameworks to guide design and implementation. With the recent center renewal (NARCH VIII, September 2014-August 2018), the above information has led the team to updated efforts. Moving forward, the GLNARCH team plans to design and support research that will identify best practices for promoting narratives as evaluation and intervention tools. This work will include a new online digital story series where participants can publicly share their experiences in a documentary-style format using GLNARCH equipment and expertise. New GLNARCH film projects are also planned based on the best practices learned from the current results. These results highlight the importance of building theory and identifying the synergies between Western-style scientific inquiry and AI/AN storytelling.

## REFERENCES

- Anderson, K., & Austin, J. C. (2012). Effects of a documentary film on public stigma related to mental illness among genetic counselors. *Journal of Genetic Counselling*, 21(4), 573-581. <http://dx.doi.org/10.1007/s10897-011-9414-5>
- Braun, K. L., Browne, C. V., Ka'opua, L. S., Kim, B. J., & Mokuau, N. (2014). Research on Indigenous elders: From positivistic to decolonizing methodologies. *Gerontologist*, 54(1), 117-126. <http://dx.doi.org/10.1093/geront/gnt067>
- Brayboy, B. (2005). Toward a Tribal Critical Race Theory in education. *The Urban Review*, 37(5), 425-446. <http://dx.doi.org/10.1007/s11256-005-0018-y>

- Brayboy, B. M. J., Fann, A. J., Castagno, A. E., & Solyom, J. A. (2012). Postsecondary education for American Indian and Alaska Natives: Higher education for nation building and self-determination. *ASHE Higher Education Report*, 37(5), 1-140. Retrieved from <http://www.ashe.ws/?page=176>
- Burger, J., & Gochfeld, M. (2011). Conceptual environmental justice model for evaluating chemical pathways of exposure in low-income, minority, Native American, and other unique exposure populations. *American Journal of Public Health*, 101(Suppl 1), S64-73. <http://dx.doi.org/10.2105/ajph.2010.300077>
- Caldwell, S., & Hernes, M. (2014, October). *Native American Research Centers for Health (NARCH) PI Meeting*. Paper presented at the Society for Advancement of Chicanos/Hispanics and Native Americans in Science, Los Angeles, California.
- Cameron, M., Crane, N., Ings, R., & Taylor, K. (2013). Promoting well-being through creativity: How arts and public health can learn from each other. *Perspectives in Public Health*, 133(1), 52-59. <http://dx.doi.org/10.1177/1757913912466951>
- Clement, S., Lassman, F., Barley, E., Evans-Lacko, S., Williams, P., Yamaguchi, S., ... Thornicroft, G. (2013). Mass media interventions for reducing mental health-related stigma. *Cochrane Database Systematic Reviews*, 7, Cd009453. <http://dx.doi.org/10.1002/14651858.CD009453.pub2>
- Cueva, M., Cueva, K., Dignan, M., Lanier, A., & Kuhnley, R. (2014). Evaluating arts-based cancer education using an internet survey among Alaska community health workers. *Journal of Cancer Education*, 29(3), 529-535. <http://dx.doi.org/10.1007/s13187-013-0577-7>
- Cueva, M., Kuhnley, R., Revels, L. J., Cueva, K., Dignan, M., & Lanier, A. P. (2013). Bridging storytelling traditions with digital technology. *International Journal of Circumpolar Health*, 72(Aug). <http://dx.doi.org/10.3402/ijch.v72i0.20717>
- Curran, V., Solberg, S., LeFort, S., Fleet, L., & Hollett, A. (2008). A responsive evaluation of an Aboriginal nursing education access program. *Nurse Educator*, 33(1), 13-17. <http://dx.doi.org/10.1097/01.nne.0000299496.23119.68>
- Dellinger, M., Jackson, B., & Poupart, A. (2015). *Great Lakes Native American Research Center for Health Promotional Video* [Motion picture]. Lac de Flambeau, WI: Great Lakes Native American Research Center for Health. Retrieved from <https://www.youtube.com/channel/UCh5yC0KZyhfx0qHCvVsk0Zg>
- Demmert, W. G. (2001). *Improving academic performance among Native American students* (Report No. ED463917). Washington, DC: Office of Educational Research and Improvement Retrieved from ERIC Clearinghouse on Rural Education and Small Schools, <http://eric.ed.gov/?id=ED463917>

- Demmert, W., McCardle, P., Mele-McCarthy, J., & Leos, K. (2006). Preparing Native American children for academic success: A blueprint for research. *Journal of American Indian Education, 45*(3), 92-106. Retrieved from <https://jaie.asu.edu/>
- Dickerson, D. L., Venner, K. L., Duran, B., Annon, J. J., Hale, B., & Funmaker, G. (2014). Drum-Assisted Recovery Therapy for Native Americans (DARTNA): Results from a pretest and focus groups. *American Indian and Alaska Native Mental Health Research, 21*(1), 35-58. <http://dx.doi.org/10.5820/aian.2101.2014.35>
- Ebor, M., Murray, A., Gaul, Z., & Sutton, M. (2015). HIV awareness and knowledge among viewers of a documentary film about HIV among racial- or ethnic-minority older adults. *Health & Social Work, 40*(3), 217-224. <http://dx.doi.org/10.1093/hsw/hlv041>
- Eschiti, V. S. (2004). Holistic approach to resolving American Indian/Alaska Native health care disparities. *Journal of Holistic Nursing, 22*(3), 201-208. <http://dx.doi.org/10.1177/0898010104266713>
- Great Lakes Inter-Tribal Epidemiology Center. (2011). *Community health data profile: Michigan, Minnesota, and Wisconsin tribal communities, 2010*. Lac du Flambeau, WI: Great Lakes Inter-Tribal Council, Inc., Great Lakes Inter-Tribal Epidemiology Center.
- Gracey, M., & King, M. (2009). Indigenous health part 1: Determinants and disease patterns. *Lancet, 374*(9683), 65-75. [http://dx.doi.org/10.1016/S0140-6736\(09\)60914-4](http://dx.doi.org/10.1016/S0140-6736(09)60914-4)
- Gubrium, A. C., Hill, A. L., & Flicker, S. (2014). A situated practice of ethics for participatory visual and digital methods in public health research and practice: A focus on digital storytelling. *American Journal of Public Health, 104*(9), 1606-1614. <http://dx.doi.org/10.2105/ajph.2013.301310>
- Haynes Writer, J. (2008). Unmasking, exposing, and confronting: Critical race theory, tribal critical race theory and multicultural education. *International Journal of Multicultural Education, 10*(2), 1-15. Retrieved from <http://ijme-journal.org/index.php/ijme/article/view/137>
- Hoover, E., Cook, K., Plain, R., Sanchez, K., Waghiyi, V., Miller, P., . . . Carpenter, D. O. (2012). Indigenous peoples of North America: Environmental exposures and reproductive justice. *Environmental Health Perspectives, 120*(12), 1645-1649. <http://dx.doi.org/10.1289/ehp.1205422>
- Jackson, B., Dellinger, M. J., Tornes, E., Poupart, A., & Dellinger, J. A. (in press). The Great Lakes Native American Research Center for Health: Building upon successful student development in Indian Country. *Indian Health Service Primary Care Provider, 40*(10), Retrieved from <https://www.ihs.gov/provider/archives/>
- Jordan, D., & Bonds, T. (2015). The HeLa documentary film: An engaging writing and culturally relevant assignment on cell division and ethics for non-science majors. *J Microbiol Biol Educ, 16*(1), 77-78. <http://dx.doi.org/10.1128/jmbe.v16i1.830>

- Kitchen, J., Cherubini, L., Trudeau, L., & Hodson, J. (2010). Weeding Oout or developing capacity? Challenges for Aboriginal teacher education. *The Alberta Journal of Educational Research*, 56(2), 107-123. Retrieved from [www.ajer.ca](http://www.ajer.ca)
- Martin, D. E., & Kipling, A. (2006). Factors shaping Aboriginal nursing students' experiences. *Nurse Education Today*, 26(8), 688-696. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0260691706001134>
- Martin, D., & Seguire, M. (2013). Creating a path for Indigenous student success in baccalaureate nursing education. *Journal of Nursing Education*, 52(4), 205-209. <http://dx.doi.org/10.3928/01484834-20130314-01>
- Pan, L., May, A. L., Wethington, H., Dalenius, K., & Grummer-Strawn, L. M. (2013). Incidence of obesity among young U.S. children living in low-income families, 2008-2011. *Pediatrics*, 132(6), 1006-1013. <http://dx.doi.org/10.1542/peds.2013-2145>
- Simonds, V. W., & Christopher, S. (2013). Adapting Western research methods to Indigenous ways of knowing. *American Journal of Public Health*, 103(12), 2185-2192. <http://dx.doi.org/10.2105/AJPH.2012.301157>
- Thomas, L. R., Rosa, C., Forcehimes, A., & Donovan, D. M. (2011). Research partnerships between academic institutions and American Indian and Alaska Native tribes and organizations: Effective strategies and lessons learned in a multisite CTN study. *American Journal of Drug and Alcohol Abuse*, 37(5), 333-338. <http://dx.doi.org/10.3109/00952990.2011.596976>
- Thonon, B., Pletinx, A., Grandjean, A., Billieux, J., & Laroï, F. (2016). The effects of a documentary film about schizophrenia on cognitive, affective and behavioural aspects of stigmatisation. *Journal of Behavior Therapy and Experimental Psychiatry*, 50, 196-200. <http://dx.doi.org/10.1016/j.jbtep.2015.08.001>
- Thornton, B., & Sanchez, J. E. (2010). Promoting resiliency among Native American students to prevent dropouts. *Education*, 131(2), 455-464. Retrieved from <http://eric.ed.gov/?id=EJ930615>
- Tobias, J. K., & Richmond, C. A. (2014). "That land means everything to us as Anishinaabe...": Environmental dispossession and resilience on the North Shore of Lake Superior. *Health Place*, 29, 26-33. <http://dx.doi.org/10.1016/j.healthplace.2014.05.008>
- U.S. Department of Health and Human Services. (1999). *Roundtable conference on American Indian research training needs. Final Report*. Washington, DC: U.S. Department of Health and Human Services, Indian Health Service and National Institutes of Health.
- Warne, D. (2006). Research and educational approaches to reducing health disparities among American Indians and Alaska Natives. *Journal of Transcultural Nursing*, 17(3), 266-271. <http://dx.doi.org/10.1177/1043659606288381>

Wexler, L., Gubrium, A., Griffin, M., & DiFulvio, G. (2013). Promoting positive youth development and highlighting reasons for living in Northwest Alaska through digital storytelling. *Health Promotion Practice, 14*(4), 617-623. <http://dx.doi.org/10.1177/1524839912462390>

Wisconsin Department of Health Services. (2005). *Wisconsin minority health report, 2001-2005*. Madison, WI: Wisconsin Department of Health Services.

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