

Advancing Native Health in North Carolina Through Tribally Led Community Changes

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American Indian children have a disproportionately high risk of developing obesity and type 2 diabetes [1-3]. Indeed, the prevalence of obesity among American Indian 4-year-olds (31.2%) was the highest of all 5 major race/ethnic groups examined in a recent study; this rate was almost double the rate for non-Hispanic whites (15.9%) and Asians (12.8%) [4]. The multifactorial origins of these health disparities are present very early in life and include genetics, environment, and policy factors that influence dietary and activity behaviors and challenges in accessing health care [5-9].

Targeting environmental and policy factors could potentially improve health equity among American Indians. To date, focusing on individual characteristics and behaviors while neglecting to modify the environmental and policy contexts in which American Indians live has yielded little progress [10, 11]. Nevertheless, comparatively few studies have rigorously evaluated the health impacts of tribally led policy, systems, or environmental changes that aim to promote active living or healthy eating [12]. A recent article presenting 3 case studies of intervention trials [13] concluded there are critical knowledge gaps regarding which institutional and multilevel approaches are most culturally and contextually appropriate for the prevention of chronic disease among American Indians.

To advance research and begin to address health disparities, the American Indian Healthy Eating Project (AIHEP) was created in the fall of 2008 using community-based participatory research. The aim was to develop land use planning and policy strategies for improving access to healthy, affordable foods in 7 American Indian communities in North Carolina. More than 122,000 American Indian/Alaskan Native individuals reside in North Carolina, making this the 7th largest American Indian popula-

tion in the nation [14]. Overall, American Indians in the state face significantly worse health outcomes than white North Carolinians [15]. AIHEP was supported in part by the National Institutes of Health and Healthy Eating Research, a national program of the Robert Wood Johnson Foundation. The project was based on social cognitive theory [16], ecologic frameworks [17-19], and consumer behavior models and took into account various theories and concepts that attempt to explain political decision making and public policy participation.

As our group has described elsewhere [20], AIHEP evolved through 5 phases: starting conversations, conducting multidisciplinary formative research, strengthening partnerships and tailoring policy options, disseminating community-generated ideas, and accelerating action while fostering sustainability. These phases helped us develop and disseminate *Tools for Healthy Tribes* [21]—a toolkit created in partnership with the 7 participating tribes—that was designed to increase awareness of tribally led environmental and policy strategies for raising a healthier generation of American Indian children. AIHEP was one of the first studies to rigorously examine the food environment of American Indians living off reservations and to systematically explore with tribal leaders their potential to use changes in policy, systems, and the environment to promote healthy eating. Data were not collected on in-store food availability, access to physical activity resources, or health outcomes.

Building on the momentum established through AIHEP and with the support of the Kate B. Reynolds Charitable Trust, a 3-prong capacity-building approach known as Healthy, Native North Carolinians was undertaken to accelerate tribally led community changes. The first prong of the program was to expand the capacity of tribal leaders

and community stakeholders to develop, implement, and evaluate sustainable community changes that promote active living and healthy eating. The second prong was to foster connections between tribal governments and community stakeholders who are interested in community changes related to active living and healthy eating. The third prong was to create a model program that American Indian tribal leaders could use to develop the capacity for this type of community change. For our purposes, tribally led community changes were self-determined changes in policy, systems, or the environment, initiated by tribal leaders, that promote active living or healthy eating through ongoing, repeated, long-term, strategic, and/or comprehensive planning.

As discussed in *Healthy, Native North Carolinians: Advancing Native Health through Community Changes, Capacity Building, and Collaborations* [22], 7 American Indian tribes and 3 urban Indian organizations in North Carolina collaborated with partners in state government, academia, and the community to create self-determined plans of action. These plans generally integrated a variety of community changes aiming to foster active living and healthy eating; for example, 8 tribes and urban Indian organizations started or expanded community gardens; 3 tribes built or expanded walking trails; and the Sappony started an annual trail race, which they have sustained over the past 3 years. All participants in *Healthy, Native North Carolinians* also made efforts to improve access to healthy foods and beverages during their community events; for example, the Waccamaw Siouan Tribe started offering healthy concessions at their sporting events, and the Haliwa-Saponi Indian Tribe sold fruit cups at their powwow. More than 20 tribal leaders grew in their capacity to develop, implement, evaluate, and sustain such community changes, and more than 238 individuals and organizations engaged with *Healthy, Native North Carolinians*. Participating tribal leaders said that their participation contributed to increased civic engagement among members of their communities, facilitated cross-community collaborations, and enhanced statewide recognition of their role in raising a healthier generation of American Indian children.

The Kate B. Reynolds Charitable Trust recently renewed its support for *Healthy, Native North Carolinians* for another

2 years. With this support, the American Indian Center at the University of North Carolina at Chapel Hill (<http://americanindiancenter.unc.edu>), in collaboration with participating tribal communities and partnering academic, government, and community organizations, has now leveraged more than half a million dollars to create meaningful ways of reducing the prevalence of obesity among Native American youth by shaping the communities in which these children and their families live, pray, study, eat, and play. **NCMJ**

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