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**Title of Initiative:** Innovative Health Disparities Solutions for American Indian/Alaska Native Small Businesses

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**Objectives:** This initiative will support small business innovation research proposing to develop a product, technology, and/or service for commercialization to improve American Indian/Alaska Native (AI/AN) health, further research, and build the workforce for reducing and ultimately eliminating health disparities. Appropriate technologies, services, and products should be practical, sustainable, accessible, affordable, and culturally acceptable for AI/AN populations.

**Background:** AI/AN communities have strengths such as creativity, leadership, and resourcefulness, perfect for capitalizing on the NIH Small Business Innovation Research/Technology Transfer Program (SBIR/STTR) program and this initiative. This economic investment by NIH will support the ability of AI/AN to further protect and enhance AI/AN health, safety, and welfare through developing culturally competent and tailored solutions to alleviate health disparities affecting their communities. These NIH grants will provide economic resources to AI/AN small businesses and entrepreneurs who understand how to implement solutions and identify health disparities within their communities. Lastly, this NIH funding will support the creation of AI/AN jobs and economic opportunities by providing an outlet to hire, train, and enhance the workforce to strengthen the community and future generations.

To meet this challenge, the NIMHD is committed to: 1) leveraging the SBIR/STTR programs to better align with the institute's mission; 2) educating small businesses and entrepreneurs on the value of using the NIMHD Research Framework to identify novel health-related research product opportunities; and 3) promoting social entrepreneurship.

**Description of Initiative:** This concept's purpose is to engage small business concerns (SBCs), entrepreneurs and institutions from diverse backgrounds—such as human services, health research, engineering, science, and business—in developing technologies, services, and products. This concept enables AI/AN communities to conduct sustainable health-promoting activities and culturally specific interventions according to what is best for their community. These AI/AN-oriented solutions could lead to improved health, better health care, and increased research delivery, eliminating health disparities and achieving health equity in their communities.

## Research Priorities

NIMHD encourages projects leading to commercialization of affordable, accessible and culturally acceptable technologies, services, and products to disrupt or prevent interactions and processes responsible for creating or sustaining health disparities. Proposals may be new or

innovative and should be informed by the NIMHD Research Framework, available at <https://nimhd.nih.gov/about/overview/research-framework.html>. The NIMHD Research Framework identifies diverse factors within socio-ecological domains and levels that, individually and synergistically, are known to influence the distribution of disparate health outcomes among racial and ethnic minority populations and other groups who experience health disparities compared to the majority of the U.S. population. Within the context of SBIR/STTR programs, SBCs, entrepreneurs and institutions inform product conceptualization and designs that can leverage this framework. They can also inform novel design thinking and outcome-driven innovation leading to technologies useful at the individual, interpersonal, community, or societal levels. In addition to the factors listed in the Research Framework, technologies should acknowledge social determinants of health (SDOH) and how these determinants can increase risks for health disparities or increase resilience to adverse health outcomes. NIMHD recognizes the existence of diverse barriers in contributing to health disparities across multiple levels of influence:

- *Physical and Social Environmental Barriers* – Factors such as proximity to health and human service facilities and transportation may limit access to health care or an environment that supports behavior change.
- *Knowledge Barriers* – Health literacy and language barriers can inhibit health care delivery, and limit patient information for the health care provider.
- *Infrastructure Barriers* – Rural hospitals, community health centers, allied health providers, and human services organizations may not have the same resources and expertise of large hospitals, and may not be able to afford advanced medical technologies.
- *Economic Barriers* – Lack of insurance coverage or financial resources may also contribute to disparities in health care access and time demands to travel to a health care facility.
- *Cultural Barriers* – Culture consists of the beliefs and practices shared among the members of social groups, including racial and ethnic populations, communities, health care organizations, institutions, and facilities. Cultural practices, procedures, and policies may impede access to health care, and health-promoting activities or technologies.

## Specific Areas of Interest

Possible technologies, services, and products include, but are not limited to:

- Patient-centered models for identifying and leveraging AI/AN-specific sociocultural protective factors and areas of resiliency (e.g., community support).
- Methods for addressing adverse social determinants of health, physical and social environment, knowledge, infrastructure, and economic or cultural barriers to health or health care.
- Processes for devising and promoting culturally competent clinical trials.

- Interventions that break down physical and cultural barriers alleviating discrimination, bias, and indifference to mortality and morbidity outcomes for AI/AN populations experiencing health disparities across systems of care and levels of influence (interpersonal, community, system, and structural).
- Systems to develop and leverage multiple digital technologies such as artificial intelligence, personalized medicine, and electronic health records to prevent mortality and morbidity disparities.
- Solutions leading to equal access, effective continuity of care, and provision of quality care.
- New pathways increasing AI/AN involvement in clinical trials and biomedical research.
- Technologies promoting communication or care coordination between primary care providers, hospital emergency department staff, specialty physicians, dental health professionals, nurse practitioners, mental health and behavioral health service providers, or patient navigators in AI/AN communities.