

## **SPECIFIC AIMS**

The COVID-19 pandemic has highlighted the severe health disparities and disproportionate burden of prevalence, hospitalizations and deaths in the lower socioeconomic stratum and among racial/ethnic minorities in the US.<sup>1-4</sup> These disparities are due to a multitude of social determinants of disease, including lack of access to care and to culturally appropriate information, and trauma-based mistrust.<sup>5-8</sup> Ending the COVID-19 pandemic will require rapid development and implementation of effective strategies to enhance awareness and uptake of preventive measures and improve inclusion of communities disproportionately affected by COVID-19 in clinical trials of vaccines and therapeutics. Arizona is one of the hardest hit states with one of the highest COVID-19 positivity test rates for adults (19%) as well as pediatric cases in the US; the case rates and deaths are disproportionately higher among Arizona's American Indian/Alaska Native (AI/AN), Latino and African American communities.

Arizona has the third largest population of AI/AN in the US (over 350,000) and is home to 22 federally recognized sovereign Native nations.<sup>9</sup> Compared with Whites, AI/AN in Arizona have a significantly higher prevalence of health risk factors that increase their susceptibility to COVID-19. AI/AN represent approximately 4.6% of the state's population, yet account for 19% of COVID-19 deaths where race and ethnicity of victims is reported.<sup>10</sup> Despite the substantial challenges faced during COVID-19 and the high rate of infection, AI/AN and Native nations in Arizona have demonstrated resilience.

The **long term goal** of this study is to conduct community-engaged research and outreach to increase COVID-19 awareness and education among AI/AN communities in Arizona disproportionately affected by COVID-19 and to reduce misinformation and mistrust. The **goal of this Administrative Supplement** is to establish effective, culturally appropriate strategies to enhance participation of AI/AN communities in prevention and treatment of COVID-19, including vaccine trials and future vaccine uptake.

We propose a multi-modal approach to gain a deeper understanding of community health representatives (CHRs) and community members' knowledge, attitudes, concerns and needs, regarding COVID-19 vaccine trial participation and vaccination uptake (Aim 1); to review and adapt existing COVID-19 vaccine trial educational materials to be culturally relevant and appropriate (Aim 2); and to engage with AI/AN communities in Arizona to build awareness about vaccine trials and increase intention to participate in the trials (Aim 3). This work will be guided by a **community engagement framework**, which emphasizes equitable participation between scientists and community members in all phases of the research.

To achieve the aims of this 1-year project, Phase 1 begins immediately during which we expect to have sufficient data collected within the first 90 days (Aim 1). In Phase 2, we will utilize information from Phase 1 to develop and adapt educational materials (Aim 2), and then implement and evaluate messages, educational materials, and dissemination modalities (e.g., CHR education, text messages, print materials) designed to be culturally-appropriate, acceptable, and able to reach the targeted populations (Aim 3).

In partnership with AI/AN communities in the catchment area of the parent U54 RCMI: The Southwest Health Equity Research Collaborative (SHERC), we aim to:

**Aim 1:** Assess awareness, knowledge, experiences, concerns, attitudes, and needs regarding COVID-19 vaccine trials and vaccination uptake among AI/AN communities in Arizona.

**Aim 2:** Develop and adapt culturally-appropriate educational materials and strategies designed to increase awareness of COVID-19 vaccine trials, decrease misinformation, and increase medical trust.

**Aim 3:** Implement the educational session and evaluate the impact of educational materials and strategies on enhanced awareness, trust, self-efficacy, and willingness and intent to participate in COVID-19 vaccine trials and future vaccines.

There is an urgent need to better address the concerns of AI/AN communities at this critical juncture of the COVID-19 pandemic in Arizona. Knowledge derived from this study has the potential to build awareness about COVID-19 vaccine trials and enhance participation among AI/ANs in the trials and future vaccine uptake. The unique geographical and cultural setting of SHERC, combined with the experience and expertise of this interdisciplinary team of investigators, well-positions the proposed study for success.