

Since its establishment in March 2022, the Advanced Research Projects Agency for Health (ARPA-H) has embarked on a mission to accelerate better health outcomes for everyone. At the core of the mission lies a commitment to support groundbreaking solutions to society's most daunting health challenges. By doing so, ARPA-H is laying the foundation for the next generation of life-saving treatments and cures, poised to elevate the health and well-being of all.

Through program design, facile contracting, activation of a nationwide health innovation network, early patient and community engagement, and a focus on transition pathways, ARPA-H will prioritize making solutions accessible and affordable to those in need, regardless of demographics, geographics, or socioeconomic status.

The ARPA-H workforce represents diverse backgrounds and perspectives, which is essential to fostering a creative, inclusive culture and developing policies, practices, and programs that sustain an ongoing focus on equity.

## Advancing Accessibility with Programs and Initiatives

ARPA-H programs push boundaries to ensure that their advancements benefit everyone, including those who have historically been underrepresented in biomedical research and development efforts or subordinated into a health system that too often leaves behind rural and vulnerable populations. Below are examples of ARPA-H programs and initiatives.

### **PARADIGM** (Platform Accelerating Rural Access to Distributed and InteGrated Medical care)



PARADIGM aims to improve health care access for rural populations by creating a scalable vehicle platform that can provide advanced medical services outside of a hospital setting. Building on recent developments in fields ranging from satellite communication to medical device miniaturization, this mobile care platform will allow health providers to meet rural patients where they are.

**IMPACT:** Create a new platform that delivers hospital-quality clinical, diagnostic, and essential medical services to rural America, bringing care directly to people across zip codes.

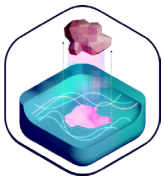
### **NITRO** (Novel Innovations for Tissue Regeneration in Osteoarthritis)



NITRO aims to address current issues surrounding osteoarthritis treatment, including equitable access for all, by developing new ways of helping the human body repair its own joints. In particular, the program focuses on three technical areas: injectable bone regeneratives, injectable cartilage regeneratives, and replacement joints built from human cells. Osteoarthritis currently affects more than 32 million Americans, with numbers predicted to rise as the nation's population ages. It is twice as common in women and has the highest prevalence in Black and Hispanic populations. Given these existing disparities, equity is incorporated into the NITRO clinical trials to ensure diversity of patient volunteers.

**IMPACT:** Develop and ensure equitable access to innovative osteoarthritis treatment, particularly in communities disproportionately impacted.

## PSI (Precision Surgical Interventions)



PSI aims to help all surgical procedures reach their intended goal with no errors and no need for re-operation. PSI seeks to develop technologies that will be used by surgeons during operations to visualize tumors' edges to increase chances of complete removal. The program is designed to ensure emerging technologies that are accessible in rural and urban areas, improving health outcomes for all Americans facing cancer.

**IMPACT:** To improve surgical procedures to remove cancer by developing innovative technologies that are accessible in rural and urban areas.

## ADAPT (Advanced Analysis for Precision cancer Therapy)



The Advanced Analysis for Precision cancer Therapy (ADAPT) program aims to harness advanced technologies and a deep understanding of tumor biology to build cancer biomarkers. By tracking tumor changes before, during, and after treatment, clinicians can pinpoint alterations in tumor traits, enabling a more proactive response to cancer care. A key feature of ADAPT will be to establish a central hub for clinicians and researchers to access data and resources. This repository will house algorithms, protocols, and evolving data on biomarkers and anti-cancer agents. These tools will allow clinicians to deliver truly adaptive and personalized cancer care for all patients.

**IMPACT:** To transform cancer care by ensuring patients benefit from the best available treatments as their tumors mutate and change.

## Sprint for Women's Health Research



As the first major deliverable of the White House Initiative on Women's Health Research, ARPA-H has committed \$100 million towards transformative research and development in women's health. The Sprint for Women's Health Initiative will support novel groundbreaking research and development to address women's health, as well as opportunities to accelerate and scale tools, products, and platforms with potential for commercialization to improve women's health outcomes. ARPA-H is focusing on the following six areas of women's health: Women's Health at Home, Prioritizing Ovarian Health Through Mid-Life to Prevent Disease, Advancing Research Through Enhanced Models for Investigating the Influence of Sex Differences on Health Outcomes (ARTEMIS), Advancing Women's Brain Health Via Lymphatic Targeting, Objective and Quantitative Measurement of Chronic Pain in Women, and Revolutionary Breakthroughs in Women's Health.

**IMPACT:** To advance the White House Initiative on Women's Health Research and spur innovation and private sector engagement needed to improve women's health.

## HEROES (Health care Rewards to Achieve Improved Outcomes)



HEROES aims to trial and validate a radically different approach to creating preventative care incentives in the health market. This approach involves offering direct payments to individual "health catalysts"—such as non-profits or care consortiums—that successfully implement preventative care campaigns that improve the rates for specific health harms in an entire geographic population. HEROES will help spur investment in community-level preventative care resources, especially in communities that have long experienced limited access to breakthroughs in medicine and health care.

**IMPACT:** Improve health outcomes focused on targeted regions across the country with a focus on underserved communities by investing in community-level preventative care resources.