

PROMPT 3: INCREASING ACCESS TO EQUITABLE HEALTHCARE IN THE U.S.

How might we leverage next generation technologies to improve equitable access to healthcare and health information for underserved communities (Black American, LGBTQ+, people with disabilities, aging populations, indigenous peoples, immigrants, and rural) in the U.S. or to help individuals from underserved groups to attain their full health potential?

Prompt Overview

The <u>World Health Organization</u> defines health inequity as "systemic differences in the health status of different population groups," and that oftentimes, one's gender, ethnicity, income level, employment status, geographic location and education contribute to disparities in health and access to healthcare. These inequities have significant social and economic costs to both individuals and society as a whole.

<u>Robert Wood Johnson Foundation</u> argues that health equity can only be achieved "when everyone has the opportunity to attain full health potential, and no one is disadvantaged from achieving this potential because of social position or any other socially defined circumstance."

This prompt asks you to consider how leading edge technology (e.g. 5G, big data, artificial intelligence or augmented/virtual reality) or innovative connected health solutions can play a role in increasing access to high quality healthcare for underserved communities.

Technology Solutions targeting the U.S./developed world contexts are of interest. Programmatic solutions are not of interest.

Themes to Consider

Please consider the following themes and questions when developing the focus of your project. They are thought starters and should be used as additional context for the prompt.

Recognize that key groups have unequal access to and experiences with healthcare

- Understand the ways that the following underserved communities experience unequal access to high quality healthcare: Black American communities, the LGBTQ+ community, people with disabilities, aging populations, indigenous peoples, immigrants, and rural communities.
 - What are the biggest health threats or barriers to care for these communities?
 - In what aspects of healthcare are these groups traditionally underserved? (e.g. preventative care including access to cancer screenings and primary care physicians, participation in clinical trials, treatment of diseases primarily found in these populations, access to affordable insurance coverage, care from linguistic or culturally competent providers)
 - How has COVID-19 exacerbated these health inequities?
 - Has Covid-19 positively impacted any aspect of access to healthcare for these communities?

- O How have the changing dynamics in the healthcare landscape such as closing of rural hospitals, reduction in primary care physicians, increase in retail health, urgent care, and virtual care impacted these communities?
- Consider the indirect influences on access to affordable, high quality healthcare.
 - Understand that there are <u>multiple social determinants of health</u> non-medical factors that influence health outcomes, such as socioeconomic status, education, neighborhood and physical environment, employment, and social support networks, as well as access to health care.
 Examine the legacy of systemic discrimination that perpetuates these barriers to equitable healthcare

Explore how technology can advance health equity

- Reflect on how technology can address known barriers to accessing quality healthcare.
 - o Are there instances where technology creates new barriers to access? How should this issue be addressed?
- Consider the role of technology to improve dissemination of important health information to underresourced communities.
- Consider how technology can reduce bias in healthcare systems and/or improve training and education of healthcare professionals to address unconscious bias.
- Investigate how technology can make medical research more inclusive and representative of diverse patient communities.
- Consider mental health in addition to physical health.

Ensure that the role of technology does not further inequity or bias

- Consider possible barriers to technology usage among these communities. How will your technology solution resolve that essential barrier?
 - For example, understand that existing video-based telehealth services are largely inaccessible to individuals with communication-related disabilities and consider how technology solutions can better address this community.
- Contemplate how certain it is that the intervention will achieve the desired outcomes and impacts. Is it likely that the intervention could produce unintended consequences?
- How do we ensure technologies like AI are mitigating implicit bias?

Questions to Consider

- Who is your target population(s), and how can you involve them in the design and delivery of your project?
- What is the potential impact of this project (e.g. number of people, depth of impact, duration of impact)?
- Are there potential partner organizations with aligned missions? How can you involve them in the design, implementation, or evaluation of your project?
- How might you address issues of safety and privacy that may arise from your project?
- Are there regulations in place that would prevent you from implementing your project? If yes, how will you address them?
- What barriers to uptake do you identify? What strategies will you use to address them?
- How can you leverage Verizon's expertise, products and connectivity to enhance or scale your project?
- How can you apply an intersectional lens to your project that takes into account how someone's race, gender, language, geography or ability might change how they interact with your product/service?
- How could your project be scaled and replicated to positively impact other vulnerable communities? Is it flexible in order to evolve over time and meet evolving needs?

Current Research

Health Equity:

- U.S. Healthcare Ranks Last Among 11 Countries
- 5 Reasons Healthcare Data is Unique and Difficult to Measure
- What is Health Equity?-Downloadable Report
- Pathways to Health Equity
- Health Equity: Why It Matters and How to Achieve It
- 5 Ways to Make Health Equity a Core Strategy
- Overview of Health Disparities in U.S. for Multiple Vulnerable Groups
- Data-Driven Strategies Reduce Health Inequities-Case Study
- Health and Human Services: Guidance and Resources for Electronic Technology Ensuring Equal Access to All Health Services and Benefits Provided Through Electronic Means

Social Determinants of Health

- CDC Research on Social Determinants of Health
- The Social Determinants of Health-The Causes of the Causes
- Racism and Health
- Understanding Racial-ethnic Disparities in Health-Sociological Contributions
- Black Patients Miss Out on Promising New Cancer Drugs
- Representation in Clinical Trials
- Health Disparities in Rural America
- Rural Health Disparities Linked to Socioeconomic Status and Care Access
- CDC Tribal Health Disparities
- Native Americans-A Crisis in Health Equity
- How 'Indian Relocation' Created a Public Health Crisis
- Achieving Health Equity for Lesbian, Gay, Bisexual and Transgender People
- 6 Major Health Disparities Affecting the LGBTQ+ Community
- Millions of Americans Are Getting Lost in Translation During Hospital Visits
- Language Barriers: Challenges to Quality Healthcare

COVID-19 Impact on Health Equity:

- COVID-19 and Health Equity-A New Kind of "Herd Immunity"
- COVID-19 FAQs- Health Equity in a Pandemic
- Racial Disproportionality in COVID Clinical Trials
- Effects of Stress and COVID-19 Among Black Americans

Technology and Health Equity:

- 10 Ways Technology is Changing Healthcare
- How Technology, Medicine, and At-Home Devices Can Improve Healthcare Access
- The Costly Paradox of Healthcare Technology
- 5 Ways Technology is Making Healthcare More Accessible
- Telemedicine Could Be Great, if People Stopped Using It Like Uber
- Speaking the Language of Healthcare
- Translation Technology

- Transforming Rural Healthcare
- Four Ways Tech is Helping Mental Health
- Empowering 8 Billion Minds: Ethical Adoption of Technology for Mental Health
- Six Ways Tech Can Help Mental Health Disorders
- 4 Revolutionary Use Cases of 5G in Healthcare
- How can 5G Connect a Post-COVID Healthcare Ecosystem?
- 18 Examples of Big Data Analytics in Healthcare
- 4 Emerging Strategies to Advance Big Data Analytics in Healthcare
- Transforming Healthcare with AI
- Top 12 Ways Artificial Intelligence Will Impact Healthcare
- Can Tech Make Doctors Aware of Unconscious Bias?
- Artificial Intelligence Bias in Healthcare
- Challenges and opportunities for public health made possible by advances in natural language processing
- Back to the Future: Achieving Health Equity through Health Informatics and Digital Health
- Equity VR Training
- Cultivating Empathy in Medicine through Virtual Reality
- Web Content Accessibility Guidelines (WCAG)

Sample Existing Solutions:

- Vscan Extend: A compact, portable ultrasound that can provide a non-invasive look inside the body for
 immediate visual validation of what a doctor can feel or hear. It can reduce the time required for
 diagnosis and optimize the course of treatment plan for a patient in settings that don't have as immediate
 access to healthcare facilities.
- <u>Be My Eyes:</u> Be My Eyes is a free app that connects blind and low-vision people with sighted volunteers and company representatives for visual assistance through a live video call.
- <u>AliveCor</u>: An app that turns your phone into a mobile EKG machine that can measure the heart's electrical activity. This app can make healthcare more affordable (replace larger, expensive equipment) and accessible (may allow patients to do more testing at home or through telemedicine).
- PeerTECH: A smartphone app-based intervention that aims to simultaneously manage mental and chronic health conditions in patients aged 60 years and older. It uses a biopsychosocial approach to increase one's social support, address loneliness, and improve self-advocacy with one's health.
- <u>Shift</u>: A women-owned company that provides Virtual Reality healthcare training with a focus on diversity, equity, and inclusion.
- <u>Tell Health</u> Mobile platform that allows patients to easily link together everyone in their care network and communicate with their providers in a simple, clear and jargon-free way using text messages, pictures and video. The ability to provide culturally and linguistically appropriate services (CLAS) helps build trust and lasting engagement with patients.