As patients and care teams evolve the standard of care to the home, common barriers emerge around complexity with access, usability, security, and supply chain.”

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The opportunity

The Pressure Check study is a 5-year, multi-site $20 million award from the Patient-Centered Outcomes Research Institute (PCORI), which seeks to address inequities in hypertension control and management through community partnerships. The project team will screen for high blood pressure in community-based organizations, including local barbershops, beauty salons, and faith-based organizations to ensure representation of the diverse end-user population, and test whether remote blood pressure management (RBPM) with a medical team and trained community health workers (CHWs) are effective in improving blood pressure control and overall well-being.

To support the capture of data in the patient’s home, Stel’s Vitals Hub was integrated into the study design allowing patients to connect with their care team without requiring Wi-Fi, smartphones, or tech-literacy, thereby prioritizing ease of use and user satisfaction.

The impact

The study team is evaluating changes in SDOH and lifestyle behaviors, experiences with the healthcare system, well-being and care utilization. The Pressure Check study may help health systems and clinics identify unique ways to identify minority and/or low-income patients with high rates of hypertension and cardiovascular disease and improve overall health outcomes for these patients. Stel is working to expand support to modems, routers, smart home speakers, and other internet gateways to enable safe and accessible connectivity for all patients.

The resource

The study team provides participants with a Stel Vitals Hub, a Bluetooth blood pressure monitor and asks them to transmit their vitals multiple times a week. Stel securely transmits the measurement to the patient’s Electronic Health Records (EHR) and/or care team’s preferred digital health or research platform.

The usability validation component of DiMe’s V3+ Framework emphasizes human-centered design supporting the development of digital health technologies (DHTs) capable of addressing various Social Determinants of Health (SDOH) and provides guidance for summative usability testing following gap analyses considering changes in intended use, use specification, and use-related risk analysis.