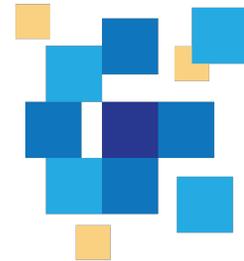


An illustration showing two identical scenes of remote patient monitoring. In each scene, a hand holds a tablet displaying a heart rate monitor and a blood pressure reading of 120. Another hand wears a smartwatch also displaying 120/80. A third hand uses a glucometer to test a drop of blood on a finger, with the device showing a reading of 59. A red pill bottle is also present. Dotted lines connect the devices, and the background features faint icons of a heart, a person, and a medical cross.

REMOTE PATIENT MONITORING INNOVATION CHALLENGE



OVERVIEW

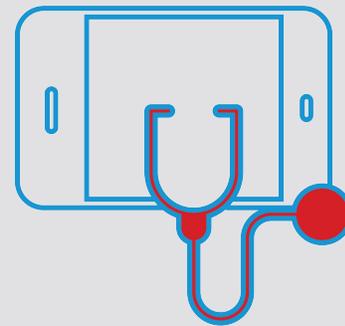
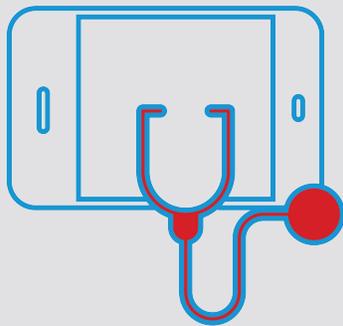
Adaptation Health's [Remote Patient Monitoring \(RPM\) Innovation Challenge](#), powered by the California Health Care Foundation (CHCF) Health Innovation Fund, Acumen America, and Health Equity Ventures, began with a highly competitive search and selection process to identify technology solutions that enable primary care providers to more effectively monitor vital data for Medicaid and other safety-net patient populations. The Challenge concluded with a Virtual Showcase of six finalist companies that presented scalable, effective, and culturally responsive RPM strategies to address diabetes, hypertension, and heart failure in vulnerable populations.

This Challenge was particularly poignant given the impacts of the current coronavirus pandemic. The virus has disproportionately affected racial and ethnic minorities, who are both more likely to catch COVID-19 and die from it. One reason for that higher risk is the higher rate at which communities of color suffer from certain chronic conditions, such as diabetes and respiratory illnesses, that studies have shown increase people's risk for severe illness from COVID-19.¹ Both COVID-19 and these underlying chronic conditions are made more dangerous by disparities, like unequal access to health care and social needs, such as quality housing or healthy foods.

Furthermore, mandatory city and statewide shelter-in-place orders reduced traditional healthcare access and worsened health outcomes for those with technology barriers, particularly communities with low incomes, low access to internet and low technology literacy. Prior to the Showcase, Ella Schwartz, Senior Program Investment Officer for the CHCF Health Innovation Fund and panel moderator, noted, "The COVID-19 pandemic has really emphasized the importance of having technologies available that can keep patients connected to the care they need, regardless of their income, internet access, language preferences, or other differences. Remote patient monitoring is an essential one of those technologies and we look forward to surfacing RPM companies with the capabilities and commitment required to meet the unique needs of the safety-net."

From a provider perspective, panelist Dr. Danielle Oryn (Chief Medical Informatics Officer of Petaluma Health Center and Chief Medical Officer of Redwood Community Health Coalition) added, "When COVID-19 hit, the biggest concern among our community health center members was how we would stay connected with our patients, especially those that aren't as tech savvy. Having remote monitoring technologies that we could scale up quickly and affordably, and be confident our patients could access and use easily, was essential to our response."

Thus, the Challenge focused on finding companies equitably leveraging technology to assist healthcare organizations to better serve their populations, both now and beyond COVID-19. This paper describes the search and selection process for companies, and offers insights from the Showcase's expert panel discussion.



PROCESS

In September 2020, partners launched the Remote Patient Monitoring Innovation Challenge, releasing a Request for Information (RFI) and beginning the applicant selection process. The Challenge aimed to accomplish three goals:

- 1 Inform** providers and payors about RPM technology by showcasing innovative solutions from emerging and established technology companies.
- 2 Support** adoption and spread of RPM in the safety-net by demonstrating effective methods for patient registration and integration with provider workflows and systems.
- 3 Facilitate** introductions between buyers and vendors of RPM technology.

Companies' solutions were required to support RPM in one of three focus areas, identified by a group of safety-net leaders, providers, health care foundations, and early-stage investors. These included cardiometabolic conditions, specifically diabetes, hypertension, and heart failure; behavioral health, specifically monitoring key metrics related to behavioral health conditions; and other conditions that would not be included in the previous two areas, but were still relevant to patient care within primary care, safety-net settings. An overwhelming majority of applicants' solutions addressed cardiometabolic conditions, and the Challenge pivoted to focus on this area. The expert panel of safety-net providers gave great insight into the urgent need to begin with RPM's ability to address cardiometabolic health, given its intersection with the coronavirus and its disproportionate impact on communities of color and other underserved communities.

With input from stakeholders, the Challenge partners identified four core selection criteria for solutions, including:

- 1 Cultural responsiveness**
- 2 Technology integrating** with existing provider workflows and software
- 3 Easy patient onboarding** and engagement
- 4 Experience working with safety-net populations**

The companies were also required to have an existing solution that demonstrated a positive net impact in engaging Medicaid and safety-net patients, and to have a specific focus and history of serving or working with marginalized or vulnerable populations. Other priorities included that the company supported digital literacy in at least English and Spanish and that the company's staff, including leadership, founder(s), and Board represented and reflected the communities receiving care and services.

After a rigorous search and selection process, a committee of project partners and outside experts made the final Showcase selection based on the aforementioned criteria. Out of almost fifty company applicants, six ventures were invited to present their RPM solutions at the final virtual Showcase to a national audience of safety-net leaders and potential customers.



A panel discussion of three expert safety-net physicians framed the Showcase by engaging in discussion about the benefits and challenges of implementing RPM solutions in their clinics, and the potential implications of the RPM Innovation Challenge. You can watch the complete panel [here](#).

The Panel of Industry Experts



Dr. Christine Braid

Medical Director of Virtual Care Services, Dignity and Vice Chair of Family Medicine Department, [Mercy Medical Group](#)



Dr. Edgar Chavez

Chief Executive Officer and Founder, [Universal Community Health Center](#)



Dr. Danielle Oryn

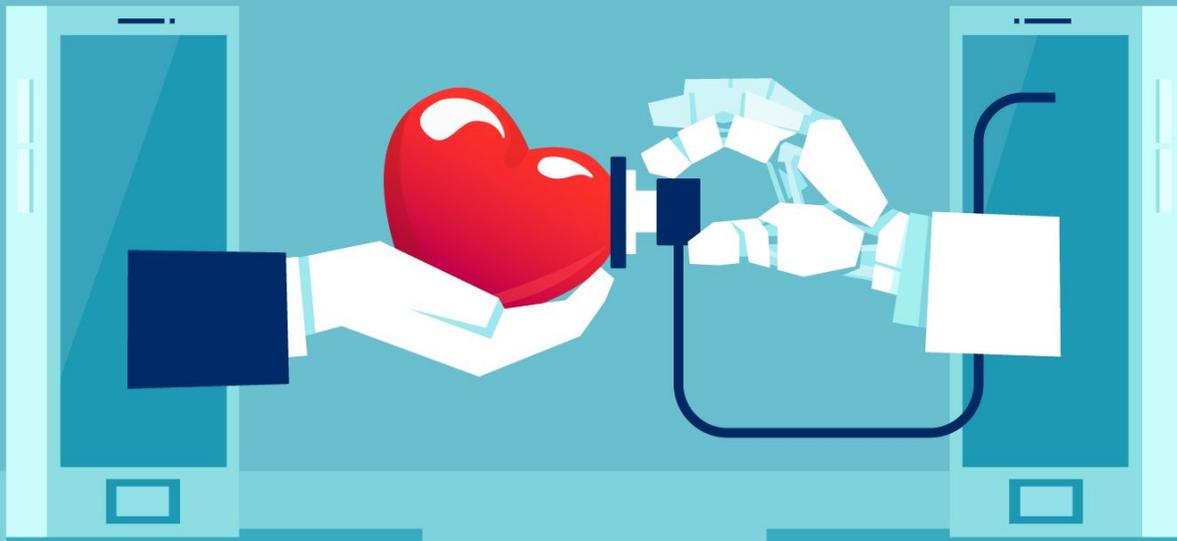
Chief Medical Informatics Officer, [Petaluma Health Center](#)

Chief Medical Officer, [Redwood Community Health Coalition](#)

To kick off the discussion, Ella Schwartz, panel moderator, noted that in engaging patients who have chronic health conditions in virtual care, it is imperative to support patients that experience these conditions disproportionately, like people of color. The panelists brought expert and diverse perspectives to this dialogue. Dr. Chavez contributed his experience with underserved Latinx populations of South Los Angeles. Dr. Oryn spoke to the needs of their Spanish-speaking patients in suburban and rural areas of Northern California, and Dr. Braid drew on Dignity's work with underserved communities across California. The panelists also brought unique lessons learned from serving very patient volumes of very different sizes, ranging from 7,000 to 75,0000.

Panelists noted the more recent and unique opportunity to utilize remote patient monitoring in primary care and chronic disease management, and the particular urgency to start with cardiometabolic health in response to the impacts of COVID-19. For example, Dr. Oryn reported seeing many patients avoid care and watching controlled chronic illnesses become uncontrolled, putting patients at risk for major health events. She stated, "I'm not sure that interacting with people 2-3 times a year who have uncontrolled chronic diseases like high blood pressure or diabetes is really the most effective care for those people. There's a real opportunity here for us to do something different."

However, the panelists also acknowledged the barriers that exist to efficient utilization of RPM such as connectivity, technological literacy, language barriers, and affordability and availability of devices for patients and providers. The panelists discussed challenges in their adoption of technology-based solutions and how they have overcome them. For example, Dr. Chavez shared that his clinic initially implemented an analog RPM program, providing blood pressure monitors to patients who were asked to manually return their data to the clinic in person or through text.



They soon realized this method of data gathering was inefficient and not useful for integration into electronic health records (EHR). Thus, Dr. Chavez successfully sought to use digital devices that would collect and integrate data into an EHR and with LTE capabilities that could overcome internet access barriers. His team is now using the data to offer meaningful actions to patients in order to monitor and control their chronic conditions.

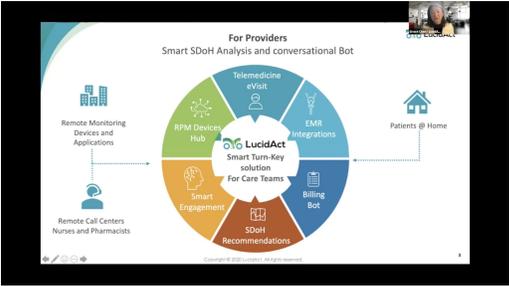
Dr. Oryn also noted how few patients had home monitors initially, and the data collection and integration difficulties that posed. She stated, “In a model with less in-person care, heart disease, high blood pressure and diabetes are pretty much impossible to monitor if a person doesn’t have at-home equipment or doesn’t know how to use it.” Her team understood early on that education and guidance on using home monitoring technology would be important in ensuring their effectiveness and impact. Dr. Oryn continued that, if executed effectively, RPM is an “amazing opportunity to increase access to good care by providing information and guidance to patients where they are and when they need it.”

The third panelist, Dr. Braid spoke to the value that virtual care can add in a bigger medical system like her organization, CommonSpirit Health (formerly Dignity Health). She described how patients can feel lost or disconnected in the transitions from acute to home health to ambulatory care, and how RPM has been used as a tool to monitor patients across each care point and to keep patients and providers in good communication.

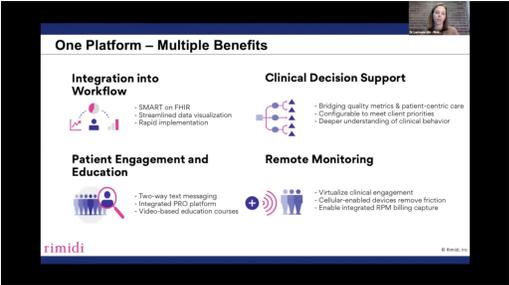
As the opening panel concluded, the participants turned their attention to the RPM Innovation Challenge and shared their excitement for the day’s events. It was, as Dr. Oryn put it, a chance to “intentionally address” the challenges that RPM presents and make its benefits all the more impactful and attainable for those in the safety net. Identifying RPM solutions with cultural responsiveness, effectiveness and scalability, is crucial for providers and healthcare organizations like those of the panelists, who seek to better serve their patients, to help them engage with and understand their health information and increase self-management of chronic conditions, in order to improve health disparities.

SOLUTIONS INVITED TO PRESENT

Six companies shared their RPM solutions to improve cardiometabolic health conditions. Watch their pitches [here](#).



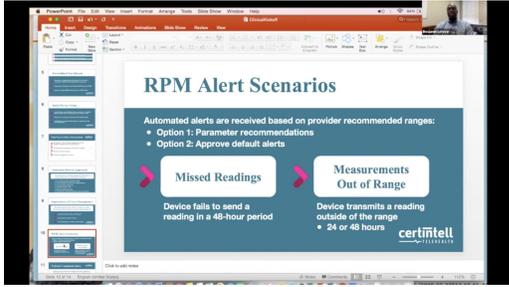
LucidAct Health collects patient data in a single integrated cloud-based platform that is device-agnostic, analyzes data, assigns a dynamic risk score to each patient, and prioritizes patients with the highest acuity.



Rimidi combines patient-generated health data from cellular-enabled connected devices with relevant clinical data from the EHR to drive patient-specific clinical insights and actions. The platform enables clinicians to get a holistic view of their patients' health, and provides digital patient health education.



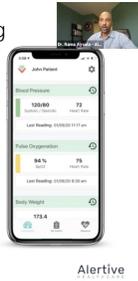
CareSignal provides chronic and behavioral tools that send automated, evidence-based messages to proactively engage at-risk patients, including educational or motivational messages at a frequency that adapts to patient responses.



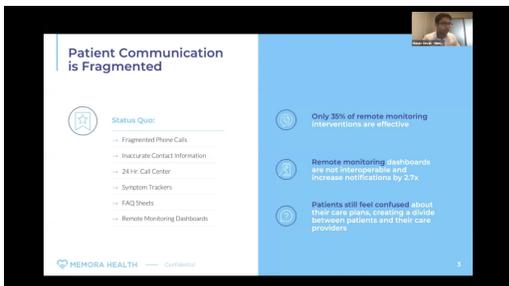
[Certintell Telehealth](#) offers out-of-the-box care for complex patients which includes a patient-centered care plan, monthly engagement and real-time readings to improve their health in the comfort of their own home and reduce avoidable hospital admissions.

Alertive Remote Physiologic Monitoring

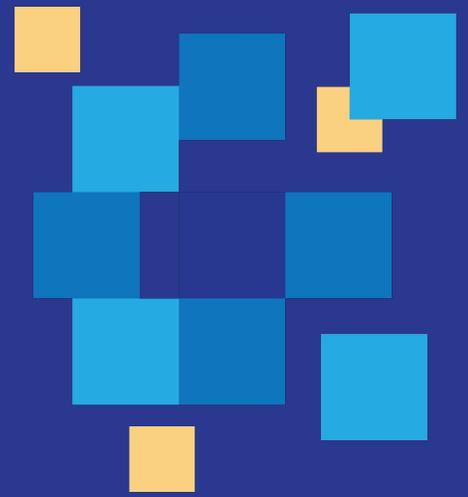
- Supported measurements:
- Blood pressure
 - Weight (with fluid status, impedance)
 - Pulse Oximetry
 - Blood Sugar
 - Temperature
 - ECG
 - Activity Tracking



[Alertive Healthcare](#) facilitates communication with care teams to monitor patients between visits, track physiological data, and interpret data to enable physicians to make better decisions that help patients live healthier lives.



[Memora Health](#) unites discrete sources of remote monitoring, secure messaging, and medical device data for a holistic view of patient progress.



SUMMARY

As remote patient monitoring adoption and reimbursement grows nationally, it is critically important to ensure that solutions do not widen gaps in health outcomes among populations with the most need, and instead reduce them, increasing access to care in innovative ways. The Showcase highlighted the great interest in culturally responsive and scalable RPM solutions among safety-net providers and payors in California and across the country. There were over 450 RSVPs for the event representing a wide range of Federally Qualified Health Center (FQHC) leadership, safety-net providers, managed care organizations (MCO), state Medicaid representatives, and healthcare-focused investors. Throughout the event, connections were made with the presenters and audience through the Zoom Q&A, a connection form, and an overview [Welcome Packet](#) that included company follow-up information.

The Challenge partners believe that innovation can be accelerated through a process that begins with identifying a deep-rooted issue and informing the need and scope by talking directly with the providers facing the problem. Through a subsequent methodology of a national RFI, curated invitation process with input from safety-net leaders, diligent review (directly by safety-net providers), and an open and transparent Showcase event, meaningful solutions can decrease time to contract and drive value to Medicaid and safety-net programs as well as improve patient care and services.

A SPECIAL THANKS TO
OUR PROJECT PARTNERS



[The California Health Care Foundation \(CHCF\)](#) is an independent philanthropy dedicated to advancing meaningful, measurable improvements in the way the health care delivery system provides care to the people of California, particularly those with low incomes and those whose needs are not well served by the status quo. We work to ensure that people have access to the care they need, when they need it, at a price they can afford.

Launched in 2011, the CHCF Innovation Fund invests in emerging companies to bring the best innovations and technology to the providers, health systems, and payers serving Californians, particularly within Medi-Cal, the state's Medicaid program. The Fund invests in mission-aligned, venture-backed technology companies that are well-positioned to scale in California. The Fund makes a direct financial investment in the company and offers grants to safety net partners to support adoption.

To learn more about the Fund and their portfolio of companies, visit chcf.org/innovationfund.



[Acumen](#) is changing the way the world tackles poverty by investing in companies, leaders and ideas. We invest patient capital in businesses whose products and services are enabling low-income communities to transform their lives in 14 countries around the world. In the United States, Acumen America invests in early-stage companies across three sectors addressing some of the biggest challenges that face low-income Americans: health, workforce development and financial inclusion.



[Health Equity Ventures](#) is an emerging venture/private equity fund laser-focused on inclusive healthcare innovations. We prioritize investments in underserved populations and underrepresented founders that advance a healthcare system that works for everyone.





ADAPTATION HEALTH

Adaptation Health is a buyer-side incubator program developing and building thought leadership and value on behalf of State Medicaid programs and managed care organizations. Through Medicaid Innovation Challenges, we connect state Medicaid agencies, managed care organizations, and innovative vendors to solve deep-rooted problems in public health and Medicaid service delivery. We match market needs and Medicaid priorities against market and product fit to cultivate an awareness of the value that innovations can bring in solving persistent and deep-rooted challenges.

To learn more visit www.adaptationhealth.org or contact Kyle Murphy at kyle@adaptationhealth.org.