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Stanford updates app for sharing data on heart health

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Resolved to improve your heart health in the new year? A newly updated app could keep you on track.

Researchers at the Stanford University School of Medicine have launched MyHeart Counts 2.0, a major update to the popular research app that allows users to share heart health and activity data with researchers. The upgrades include the Stanford Coaching Module, which will test a series of four health interventions—prompts and suggestions aimed at improving heart health; more user feedback; graphics showing user data; and an improved user interface.

"I'm excited to be able to deliver more data back to the patient," said Euan Ashley, DPhil, MRCP, an associate professor of cardiovascular medicine and of genetics at Stanford and the principal investigator for the MyHeart Counts study. Ashley's team is also aggregating and analyzing heart health data from app users and using it to improve methods of preventing heart disease.

MyHeart Counts 2.0 is the result of Stanford's collaboration with Oxford University and co-developer LifeMap Solutions, a digital health company.

The original MyHeart Counts, launched in the spring of 2015 on Apple's ResearchKit platform, has enrolled more than 54,000 participants—more users than any other ResearchKit app.

The research app allows willing participants to share measures of day-to-day activity levels, cardiovascular health, blood pressure and cholesterol levels with medical researchers at Stanford. A consent module also allows participants who have a 23andMe account to share their genetic information securely with Stanford researchers.

MyHealth Counts 2.0 will present users with graphs that show how they compare to other users in terms of how many steps they take each day, how happy they are, how much they sleep and the quantity of vegetables they are eating. Users will get prompts to learn more about what contributes to heart health.

Coaching module

MyHeart Counts 2.0 features the Stanford Coaching Module, designed in collaboration with Abby King, PhD, professor of medicine and of health research and policy. "We know when it comes to changing key health habits, such as physical activity and daily sitting time, one size definitely does not fit all. Yet, until the advent of mobile apps and other e-health programs, we've had few options for customizing messages and feedback to individuals in real time," she said.

The coaching module will guide participants through a week of baseline measurements, followed by four one-week behavior-change interventions. One intervention, for example, suggests that sedentary participants take a moment to stand up or find ways to increase their daily step count, with the aim of helping them become more active. Participants are randomized into each of the interventions, so the coaching module can act as a randomized trial that will show which interventions are most effective.

The new version of MyHeart Counts "lets us begin to customize feedback to users, and also discover which types of information might

be most useful or motivating for different groups," said King.

The app won't look very different to participants during the first, baseline week, said LifeMap Solutions CEO Corey Bridges. But in the second week, the new features "really come to life. They engage you and become your personal health coach," he said.

"The most unique thing about the new version is its ability to randomize patients and intervene," said Ashley. For example, depending on which week of the four-week intervention you're in, the app might notice you've only taken 2,000 steps and suggest that you plan a walk later in the day.

Such randomized interventions, said Ashley, will give researchers a handle on whether a particular intervention for an individual is prompting a change in behavior for the better. Ultimately, he said, future versions of MyHeart Counts will make it easy for participants to see and analyze their own data.

The app is an example of Stanford Medicine's focus on precision health, the goal of which is to anticipate and prevent disease in the healthy and precisely diagnose and treat disease in the ill.

A secure platform

Inspired by apps like MyHeart Counts, many Stanford faculty are now building apps of their own. In response, Stanford Medicine has created a HIPAA-compliant platform to store data from research applications built on smartphones.

More information: MyHeart Counts 2.0 can be downloaded from Apple's App Store at itunes.apple.com/us/app/myhear … nts/id972189947?mt=8

For more information about MyHeart Counts, go to myheartcounts.stanford.edu

Provided by Stanford University Medical Center