Mount Sinai and LifeMap Solutions announce initial results for asthma health app

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The Icahn School of Medicine at Mount Sinai and LifeMap Solutions, a digital-health subsidary of BioTime, Inc. (NYSE MKT: BTX), today announced initial results and new clinical features for their free Asthma Health app. Released six months ago, the app enables individuals with asthma to participate in a large-scale medical research study by simply using their Apple iPhones. The app's newest features—the "Doctor Dashboard" and integration with Epic, the popular electronic health records (EHR) system—will help enable Asthma Health study participants to use the app with their physicians.

"We are delighted with the initial results we've seen after six months of using Apple's ResearchKit framework for our Asthma Health app," said Eric Schadt, PhD, the Jean C. and James W. Crystal Professor of Genomics at the Icahn School of Medicine at Mount Sinai, and Founding Director of the Icahn Institute for Genomics and Multiscale Biology. "We recruited and enrolled over 8,600 research participants in our study, remotely via the Asthma Health app without direct, in-person, contact. The breadth, depth, and quality of the data we've obtained, in one of the largest real-world epidemiological studies of asthma, has exceeded our expectations. Our experience demonstrates why mobile apps are fundamentally transforming medical research."

"Studying the rich data from thousands of participants, we have found some preliminary but fascinating patterns regarding the usage of the app

and activity level data collected from surveys and HealthKit. Also, our patients' asthma triggers, medication usage, and clinical outcomes are of great interest," said Yu-Feng Yvonne Chan, MD, PhD, Director of Digital Health and Personalized Medicine at the Icahn Institute for Genomics and Multiscale Biology at Mount Sinai. "Further, many of our study participants wrote to inform us that the app was serving as more than a research tool, or an educational tool, but was actually helping them better understand and manage their condition and feel better overall. This potential positive impact of our research study on the participants has inspired our team to introduce new features and enhancements to the Asthma Health app."

Corey Bridges, CEO of LifeMap Solutions, explained. "We learned that some app users were showing their historical health data, as displayed in Asthma Health, to their doctors, in order to start very information-rich conversations. Inspired by these stories, we worked closely with our Mount Sinai colleagues to build an even more useful feature—the new Doctor Dashboard. Now, the patient just presses a button in the app and hands their iPhone to their provider. Within seconds, any provider can get a sense of the patient's recent asthma condition, symptom control, and activity. Any patient can show their Doctor Dashboard to any care provider, anywhere."

Bridges continued, "We've also integrated Asthma Health with Epic, the popular electronic health records (EHR) system, so that pulmonologists at Mount Sinai can order and obtain data from the Asthma Health app for their patients who are using it."

"At Mount Sinai, we are working with our Respiratory Institute co-investigators to pilot the integration of data from the Asthma Health app with our Epic EHR system," said Dr. Chan. "We believe that the addition of rich, longitudinal data from our asthma patients into their electronic health records may be of great value to the pulmonologists and

other clinicians providing care. Over time, we plan to expand this EHR integration at Mount Sinai."

Said Bridges, "We're thrilled and humbled that our research app is being utilized in this way. We look forward to helping other care providers and medical centers around the country do the same, to benefit as many asthma patients as possible. And we're incorporating the learnings from Asthma Health into our future digital health apps."

  More information: The Asthma Health app is available for free download in the Apple App Store; for more information visit icahn.mssm.edu/asthmaapp

Provided by The Mount Sinai Hospital