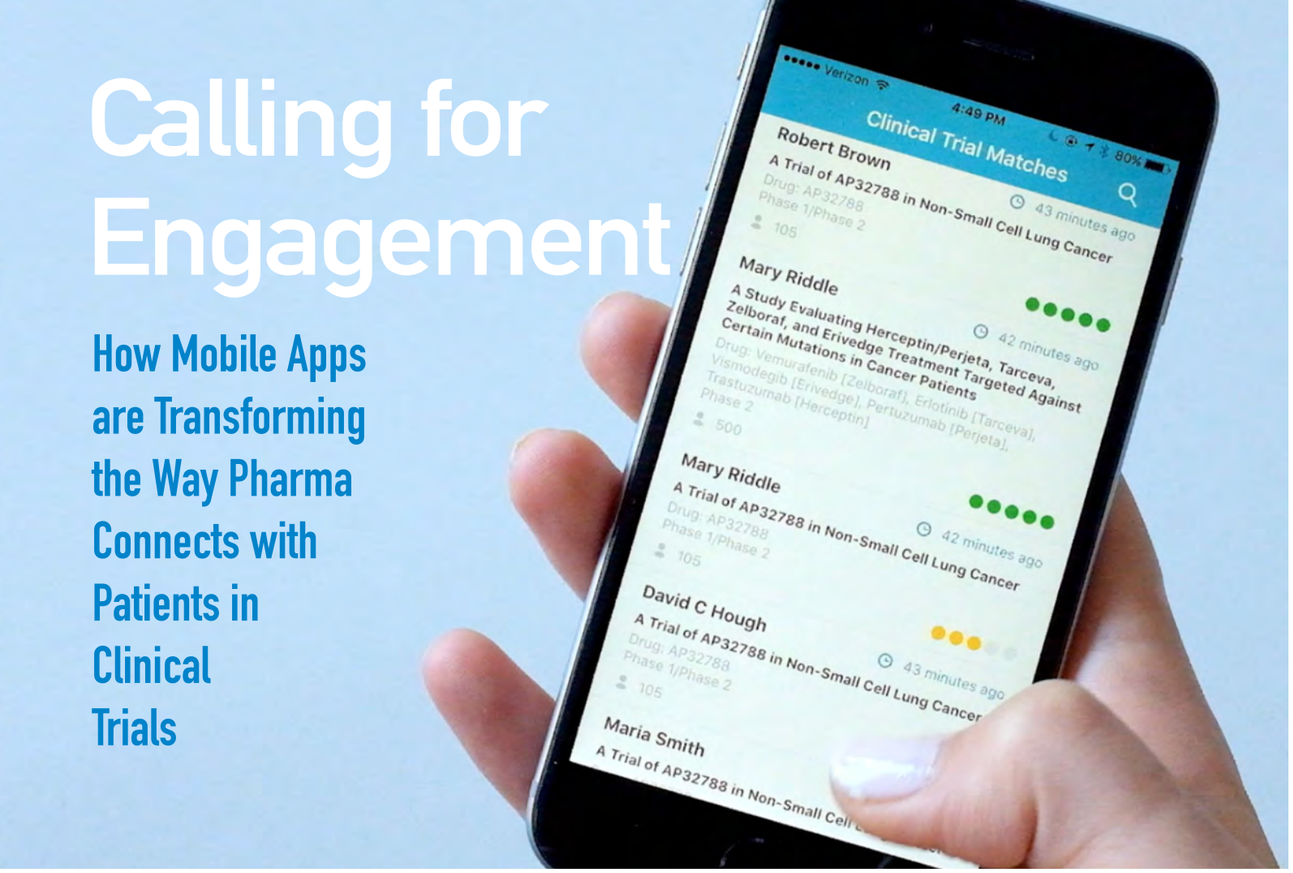
Calling for Engagement

How Mobile Apps are Transforming the Way Pharma Connects with Patients in Clinical Trials



Patients are the lifeblood of clinical trials. Collecting their data is a necessary step in determining the efficacy and safety of an intervention. However, keeping patients informed and engaged is equally important—and the very essence of the patient-centricity movement. There is an opportunity for mobile apps to make patients feel like "partners" in their clinical trial rather than "generators of data."

There's also a growing body of evidence demonstrating the promise of mobile technology to boost patient compliance and reduce study dropout rates. Jeff Lee, CEO of mProve Health, a company that develops innovative, mobile patient technologies for life science companies, sat down with The Journal of mHealth to talk about how mobile apps are being used in clinical trials.

What has driven you to develop mobile apps for clinical trials?

I have been in the mobile field for more than 20 years, initially developing technologies for non-health related industries. I worked with Fox and AT&T to provide text message voting for American Idol. I delivered mobile solutions for HBO, Disney, Discovery, and National Geographic, as well as working with the 2008 Obama campaign to target and engage with voters. Whether an organisation is looking to drive people to vote, to visit stores, or to engage with their ideas, mobile technology can drive connections in many valuable ways.

I became interested in the benefits that mobile technology could bring to health when, over a 30-day period, both of my parents passed away from cancer and my son was born. I spent a lot of time in-and-out of the healthcare system at that point. In 2010, the company I had been working for was sold and I wanted to start something of my own. I became very interested in how technology could be used to influence individuals' health choices; how it could motivate them to act; to change their behaviour; to encourage them to have meaningful connections with their healthcare providers.

Denis Curtin, Chief Scientific Officer at mProve Health, was already a good friend, a pharmacologist, and pharmaceutical industry veteran. We got to talking about how we could use mobile in the healthcare space. Back then mobile, technology was relatively unchartered territory for clinical research and presented a huge opportunity.

How can mobile technology change a patients' clinical trial experience?

Patients generally find themselves as a participant in a clinical research program when existing therapies for their condition are either underserved or non-existent. The unfamiliarity of the process, working with clinicians that they have likely never met before and taking a new medication or exploratory treatment, all serve to raise stress and anxiety. In addition, they are suddenly shouldered with the responsibility of having to deliver data back to the study.

Patients' participation in a trial isn't limited to just impacting their own condition, it impacts the entire research field's understanding of that condition/therapy. Non-adherence in a clinical research study has an impact on every patient that is affected by the same condition and who could benefit from the scientific advances made in that study. When we founded mProve Health, we had the belief that mobile technology could improve the patient experience in a clinical trial, thus improving engagement and making huge strides forward in keeping more patients in the trial.

How can a patient get access to a mobile app if they are participating in a research study?

Apps that can support the classic needs of clinical trials can be easily adapted to any kind of study. They're typically delivered to the patient via their clinical research site. During their study visits, patients can download the app and enter an activation code (provided by the site) that initialises and sets up their app for their trial, their research site, and all of their study-specific information. The latest technology solutions offer the flexibility to be used on any device, most commonly the patient's personal smartphone.

What do mobile apps offer patients?

Apps can instantly deliver everything a patient needs to know about the study they're participating in: their schedule of activities, when their next site visit is, and what will happen at that visit. It can confirm the duration of the appointment, whether meds need to be taken, if there will be blood draws that require fasting, as well as any other eventualities that a patient will need to prepare for in advance. (Patients may wonder, "my eighth visit will be three times as long my sixth visit so how do I plan for it?" "I'm going to be really fatigued after my fourth visit, so I may need to take extra precautions.") Apps also feature diary sections, so that information can be collected about their response to medications. Other sections communicate any reference information that would traditionally be provided on paper, giving patients the support and guidance they need to advance throughout the study. Contact sections also make it simpler for patients to get in touch with study researchers.

What value can pharma achieve by implementing patient-centric technology?

Since we started mProve Health in 2010, we've seen tremendous growth in the number of studies using mobile apps to engage patients. We've seen life science companies make the transition from piloting apps to mainstreaming them as more and more studies that use these technologies get regulatory approval, a "rubber-stamp" of approval for clinical researchers. There's a growing body of evidence that shows patients who use mobile apps are more likely to comply with the study protocol and less likely to withdraw from the study. Clinical researchers are now tasked with harnessing the value that these solutions promise. For example, if you know that a mobile solution can reduce study dropout rates by 30%, can you reduce the number of patients you need to enroll in the trial? If you know you will have 50% fewer protocol deviations for missed study visits, can you account for that in your study design? It's these types of decisions that will ultimately reduce the cost of clinical trials.

How do you expect the space to evolve over the next five years?

As mobile apps have come on to the scene over the last seven plus years, and as more technology service providers have started to offer mobile solutions for their previously web-based offerings, there are many apps for clinical trial participants to use. However, too many mobile solutions can be a disadvantage. It forces the patient to access multiple touchpoints in order to fulfil their study commitments—one app to access their study information and documents, another app to receive their study reimbursements and payments, and another app to schedule transportation to get to their study visit. At mProve Health, we are developing a mobile Patient Engagement Hub that offers patients a single touchpoint to access all of their study services.

To learn more about mProve Health, please visit *www.mprove.com* ■

Biography Jeff Lee, CEO mProve Health

Jeff Lee is founder and CEO of mProve Health, a leading provider of mobile technologies that connect and engage patients with global clinical research studies. mProve Health, headquartered in Washington, DC, is Jeff's fourth entrepreneurial technology venture. His prior ventures pioneered the mobile engagement work for the American Idol text-to-vote campaign, Barack Obama's 2008 campaign, and other high profile projects for Fortune 500 companies including Disney, MasterCard, and Exxon Mobil. He started his career as a corporate strategy consultant at Ernst & Young. Since founding mProve Health in 2010, Jeff has grown the company globally. Today, mProve's applications are used by 18 of the top 20 pharmaceutical companies, 15,000 clinical research sites in over 60 countries, and they are translated in over 50 languages.