

Collection of information and data for the adoption of medical based applications.

What are the Main Barriers for the Adoption of Medical Apps?

The medical app market is currently facing many obstacles. According to research2guidance's mHealth App Developer Economics 2014 study the mHealth app market is currently facing many obstacles. Lack of data security (34%) and standards (30%) are the major barriers market players see as those which might prevent a market momentum. Additionally, the important barriers hold difficult discoverability and resistance from traditional health care providers. But according to the opinion of one of the survey participants, "The mindset of health care professionals is the main barrier to overcome – to move the "power" from the professionals to the patients."

However, according to the survey conducted by [eClinicalWorks](#), a leader in ambulatory healthcare IT solutions, among healthcare professionals in United States, mobile apps adoption and usage is highly recommended by majority of them. According to the survey, 89% of physicians would recommend a mobile health app to a patient, 93% believe a mobile health app can improve a patient's health and 93% find value in having a mobile health app connected to Electronic Health Records (EHR).

With this health care shift is the shift of daily tasks to mobile technology. Most mobile tools utilized today by physicians are related to reference or other resources geared towards them, not the patient or care. Specifically they involve the top 3 health issues: preventative care, medication adherence and diabetes. I suggest a few ways in which the introduction of mobile healthcare tools to physicians will itself lead to adoption. Small steps are needed in this process contrary to what I see as industry's "build it and they will come" philosophy, with its predictable disappointment.

Key challenges for medical apps are mostly related to satisfying the user's need to filter actionable data, to ensure the full connectivity with EHR, to obtain clinical efficacy studies, to ensure interoperability among app and platforms and to provide reimbursement programs.

According to David Lee Scher, MD and Digital Health Tech Consultant, the adoption of mobile medical apps by professionals might be potentially improved by higher awareness among professionals, key opinion leader input, incentive programs for physicians, patients introducing medical apps to doctors and medical school courses for students. Let's take a look at each of them in more detail.

Awareness can be ensured with the increase of involvement of physicians in clinical pilots. This accomplishes three things. It introduces physicians to mobile health tools and processes involved in using them. It serves as an avenue for user experience feedback from both physicians and patients, and may provide some outcome data. Additionally, discoverability of mobile medical apps must be optimized because there are thousands of apps in the app stores and it's difficult to decide which app is worthy. A network of key opinion leaders must be established. Peer to peer education has a successful track record in both the pharmaceutical and medical device sectors. Is mobile technology different from the adoption of any other change in health care delivery? I think not. To improve the adoption of medical apps, mobile technology must be integrated into the educational agenda of key opinion leaders (KOL's), providing invaluable support in conveying information and addressing concerns of physicians through traditional media outlets as well as social media.

Incentive programs for physicians must be provided by payers to use quality-assured tools (portal, diabetes tools). The use of mobile health apps and other tools (communications, delivery of educational content, and interoperability of data with EHR) might promote the use of robust patient portals. This accomplishes two things which will benefit patients. Payers are in the unique position to incentivize both patients and providers to take advantage of these mobile tools. In what way can payers incentivize physicians? How about having a physician directory which highlights those who utilize mobile health technologies? Like-minded patients who desire to become more participatory in their care will gravitate towards these providers, potentially fostering good relationships even before meeting.

Changing behavior in the doctor-patient relationship can be an opportunity for better adoption of medical apps. Just as physicians can change patient behavior, patients can exert influence on physicians by asking questions about the use of digital technologies by their physicians. It's a so-called "bottom-up" approach. These inquiries might get physicians thinking, because demand is creating offers. Patients who suggest medications based on DTC marketing ads often receive them. Patients who are proactive are better patients.

Let's talk about medical school courses for students. Digital natives are now medical students. Students are excited to use mobile technologies in health care. Many are designing apps or anxious for others to do so. There are many reasons why medical schools are at the forefront of mobile medical apps. A "bottom up" approach seems logical in this arena because of the slow change in health care culture by the establishment. Mentors in medical schools may not be champions of mobile health tools for many reasons, the new generation of students are the champions.

This a list of basic points necessary to improve the adoption of medical apps. They should provide sources of consideration for starting points of those interested in this sector. There needs to be a clear distinction made between the introduction and adoption of technology. Thinking about the process this way might result in less frustration by the industry, investors, and create a different model for implementation and sales.

THE FDA and their present and intended role for medical based Apps.

[Examples of Mobile Apps For Which the FDA Will Exercise Enforcement Discretion](#)

[Examples of MMAs the FDA Regulates](#)

[Examples of Pre-Market Submissions that Include MMAs Cleared or Approved by FDA](#)

Xconomy Boston — Gregory T. Huang

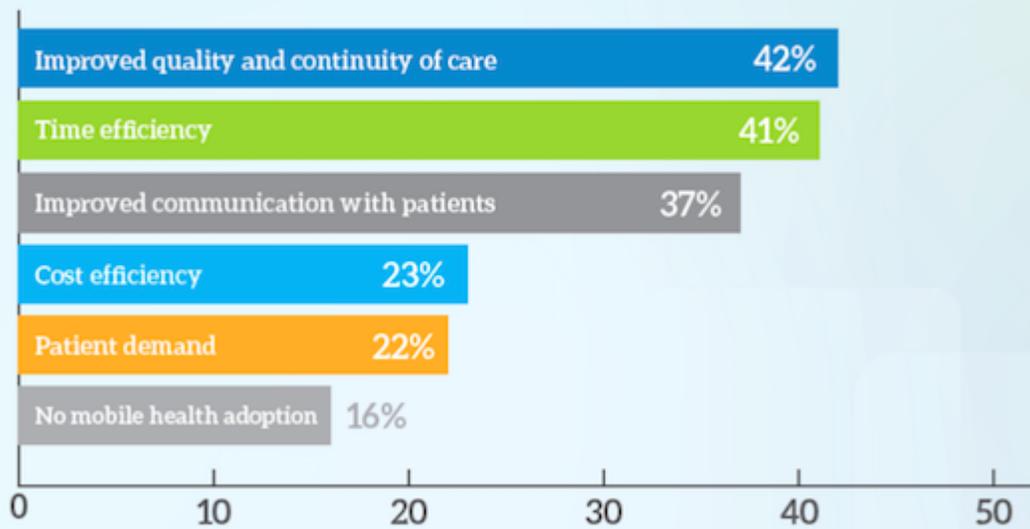
More than 80 percent of U.S. doctors surveyed use mobile apps or view professional content on mobile devices for work. That's a significant increase over the numbers from around a year ago, according to a new survey.

The main reasons for adoption? Improved patient care and communication, and time efficiency, doctors say. The [survey](#) was conducted by [MedData Group](#), a healthcare marketing company in Topsfield, MA, and involved polling 375 physicians around the country this month.

The findings reflect a general sense that [health IT services are picking up steam](#) among doctors, patients, and corporations—and that is driving increased interest from investors as well. In fact, 2014 was a record year with \$6.5 billion invested in digital health companies, an increase of 125 percent over the previous year, according to [StartUp Health Insights](#).

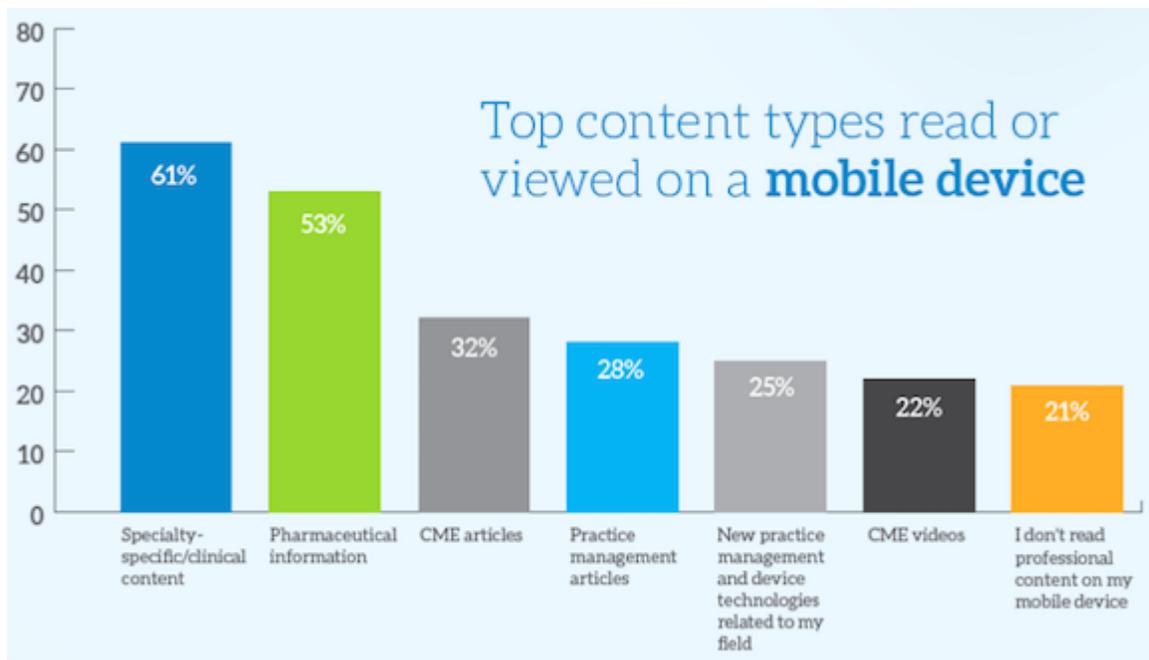
Healthcare is a notoriously slow-moving industry, but the MedData report suggests doctors themselves are driving big changes. The chart below shows only 16 percent of physicians surveyed say they have not adopted mobile health. That's down from about 33 percent in [a similar survey a year ago](#). (It's not a perfect comparison, because the pool of doctors has changed and the exact wording of the questions may differ.)

Top reasons for physician adoption of **mobile health**



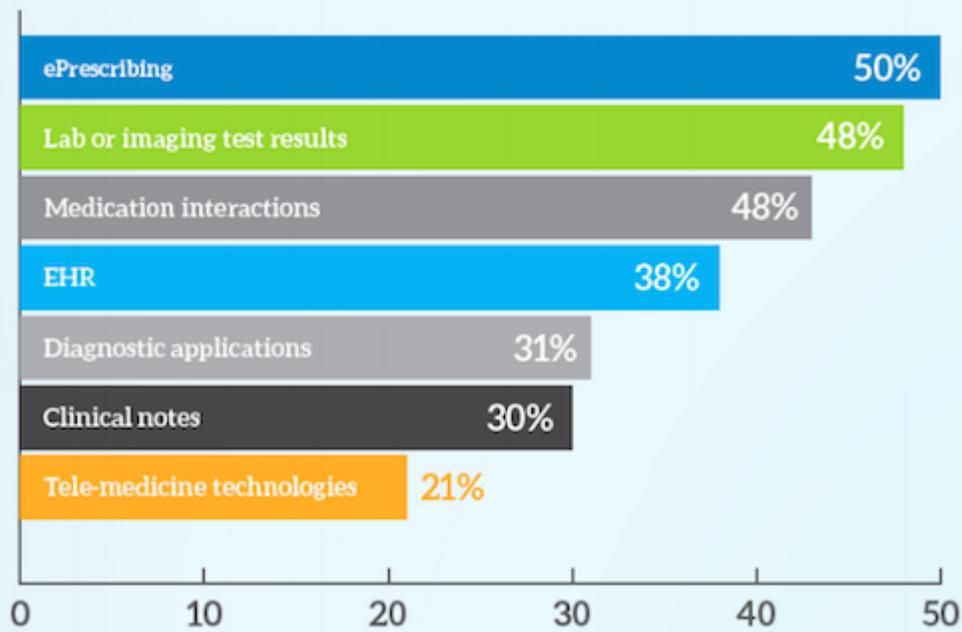
Another difference from a year ago is an increased focus on quality and continuity of patient care, rather than cost efficiency.

The new survey tried to dig into what kinds of content and apps doctors access on mobile devices. The chart below shows that clinical articles and drug information top the list of mobile content. Still, 21 percent of doctors said they don't read professional content on mobile.



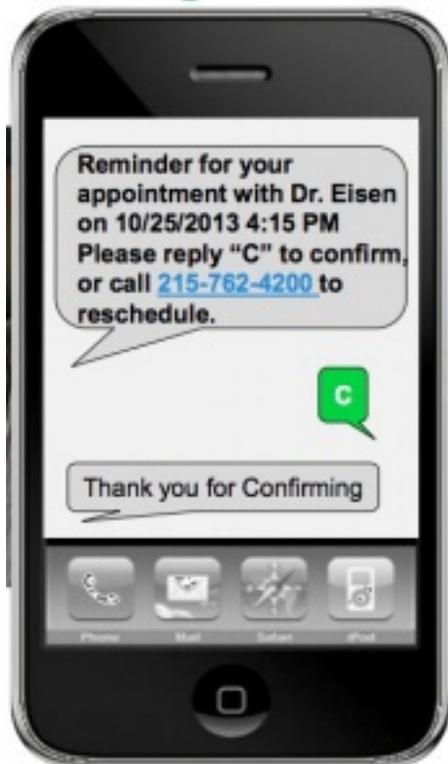
Last year, the big trend in what doctors were looking for was mobile access to electronic health records. And the most popular apps had to do with medication interactions. This year it's different: doctors predict that the most popular type of medical app in 2015 will be for electronic prescriptions—whereby the information can be entered into a mobile device and delivered electronically to a pharmacy. (That's followed closely by apps for lab or imaging test results, and drug interactions.)

Predictions for the **most-used healthcare apps** in 2015



What the new survey doesn't address is the skepticism a lot of doctors have about adopting broader "connected health" systems that include things like interoperable medical records, health monitoring, patient-communication portals, and telepresence technologies. But the mobile component of such systems, at least, seems to be on its way to broad acceptance.

There's a growing number of mobile health apps and app downloads



To date, 61% of people have downloaded an mHealth app. That's an astounding number, but it comes as no surprise. There's apps for everything these days, even within the healthcare industry. People want to know about their health, and healthcare providers want to be able to access information in moments that matter.

For example, Philadelphia-based Hahnemann Hospital conducted a pilot study that introduced a mobile app that supported email and text messaging to over 350 congestive heart failure patients. During this study, patients received email and text message reminders to get them to schedule follow-up appointments after being discharged from the hospital.

As a result, the hospital was able to reduce its 30-day readmissions by 10% that was a 40% improvement over their baseline. Readmissions

also decreased to 16% for patients who received messages, and the readmissions rate for those who confirmed an appointment was 8.8%, compared to 15.4% for those who didn't confirm. At the end of the 10-month pilot, it was clearly demonstrated that not only could mobile apps help patients to keep their appointments to get the proper follow-up care; it could contribute to reduced hospital costs.

Mobile health apps can be broken down into two major categories: wellness and medical. Wellness apps are typically used by patients, while medical apps are designed to be primarily used by physicians. Of the 100,000 mobile health apps in app stores around the world, 85% of apps are for wellness while the remaining 15% are for medical. Most apps are free to use or free to get started, but there's also a large portion of apps that are paid. Of the mHealth apps available in major app stores, 42% of them adhere to a paid business model.

The truth is it's becoming more of the norm to track health, whether as a physician, patient, or consumer. Apps like Apple's HealthKit and other health tracking apps make it easier to record health information within the app or integrate with other apps to get "closed-loop" reporting of health and fitness data. For example, HealthKit lets you track your heart rate, calories burned, blood sugar, and cholesterol. You can also see how many calories you consumed each day by integrating nutrition and fitness apps, like MyFitnessPal, or allow data from your blood pressure app to be shared with your physician automatically.

In 2014 alone, Research2Guidance reported that there were **over four million free downloads of mHealth apps every day**. That number is expected to keep growing.

By 2017, it's predicted that 50% of smartphone users will have downloaded mobile health apps.

Conclusion

While there are still plenty of providers who aren't using mobile health apps for patient care or engagement, data shows that they need to catch up. The truth of the matter is that healthcare providers and insurers need to "get with the times" because mobile devices truly have the potential to improve patient care and health outcomes. Surely it'll take time for adoption of mobile devices in the healthcare industry to become mainstream; however, it's looking like widespread adoption will happen sooner than we think. Companies are already investing into the development of mobile health devices, as it seems new patient engagement apps are launching every day across the globe.

While the United States leads the market in mHealth growth, other markets are demonstrating growth as well. Asia-Pacific, for example, is predicted to **grow at a rate of more than 35%** making it the fastest-growing mHealth market. In an [Allied Market Research press release](#), the United Kingdom, France and Germany also collectively accounted for 45% share in the Europe mHealth device market in 2014.

Therefore, it's clear to see that mobile health technologies are increasing in popularity globally, and as a result, transforming the face of healthcare. So if you're a healthcare provider or organization that has yet to go mobile, you may want to consider these statistics and numbers, and make a change.

Have you or your organization adopted mobile health devices? Share your thoughts and comments in the box below.