



12 trends for mobile health in 2012

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Last week MobiHealthNews hosted its first webinar of 2012. During my presentation I shared my 12 trends for 2012. Our co-presenter, Aaron Kaufman from Kony Healthcare Solutions also shared his take on the year ahead. Check out the complimentary, hour-long [webinar on demand right here](#).

1.) The Adoption of Smartphones and Tablets. This is by far the most obvious trend because it has been so steady for the past few years. It is still an important one to consider. By the end of 2011, Nielsen expected half of the US population to own a smartphone. At the end of 2011 62 percent of 25 to 34 year olds had smartphones. About 53 percent of 35 to 44 year olds did. The fastest growing age group for smartphone adoption in the past year was the 55 to 64 year old age group. Adoption among this group went from 17 percent to 30 percent a year later. Similarly the iPad has had the fastest adoption rate of any consumer electronics device in history. We know that now more than 80 percent of physicians in the US have smartphones. Between 30 percent and 50 percent have tablets now depending on who you ask.

2.) Increased FDA Clarity. This was the big trend of 2011: The FDA proposed guidelines for how it translates existing medical device regulations into the world of apps, smartphones, and tablets. For the most part these guidelines were well-received, but a number of questions remained over where exactly the FDA would draw its lines. The mHealth Regulatory Coalition recently asked the FDA to re-publish an updated set of proposals that take into account changes it should make based on comments from the industry. While it is unclear whether the FDA will publish new guidelines for a new commenting period, it is expected that the FDA will publish either the final guidelines or a new draft set by year-end. While the regulatory discussion will continue to be an important one — there are still a number of loose ends including how the FDA views clinical decision support, for example — this won't be the primary focus of mobile health discussions in 2012.

3.) Consumer Devices in the Healthcare Enterprise. This is the trend that is really at the heart of the mobile health IT discussion for healthcare providers. While a good number of healthcare facilities are deploying consumer devices like the Apple iPhone, iPad, or iPod touch, and in rarer cases Android devices, for the most part these devices are being brought into work by healthcare workers. BYOD is the name of the trend and it's a big one for everyone working in all areas of IT today. The big issues stemming from this trend include security concerns, HIPAA compliance, and user experience. Security solutions and broader mobile device management solutions will find a lot of customers in healthcare this year. The other issue brought about by BYOD is accessing enterprise apps. As the Seattle Hospital's iPad debacle last year showed, these devices aren't enough — they require well-designed native apps to ensure that providers will use them for accessing EHRs and other HIS apps. I expect design and usability concerns vs. security concerns to be a huge headache for providers this year. Finally, these consumer devices provide access to distracting consumer apps. Healthcare providers are being distracted by these devices while on the job. While this might be controversial, I think this is a rather absurd concern. We trust them to do so much, we should trust them to know when not to be surfing Facebook.

4.) More Efficacy Studies. This is **the big** trend for 2012 in my opinion. I think many others agree, too. This year, 2012 will be the year that the serious mobile health service providers step up and prove that their services work. Efficacy studies will lead to greater awareness and investment in mobile health by the provider and payor communities. Recent systematic reviews of medical literature suggests that few studies have been done to prove mobile health efficacy. I think that will be a different story come 2013. WellDoc is once again ahead of the curve here. WellDoc was out in front with FDA clearance and they are ahead of the pack since they have more than one RCT published now. Other companies working in mHealth will follow suit.

5.) Certification of Health and Medical Apps. We need more groups willing to take on this task. It's a huge opportunity and one that is unique to health apps in my opinion. Happtique, a subsidiary of the for-profit arm of the Greater New York Hospital Association (GNYHA Ventures), is the first organization to take it on. Happtique recently put together a blue ribbon panel that includes ePatient Dave, a couple of doctors and a PhD. This panel is constructing a certification process that Happtique will use to decide which consumer health apps and professional medical apps it will promote. I think any medical association can be doing the same. The American Medical Association should stop developing their own apps and start picking winners from the almost 20,000 health apps that are already in the market. This is an opportunity for every patient-centered organization — the American Diabetes Association, for example — and every medical professional association, not just the AMA — to step up and help us sort through the opaque world of health and medical apps. I think that more groups will step up in 2012.

6.) Focus on Behavior Change. This one might be a parallel to efficacy studies, but it deserves its own mention. There are nearly 13,000 consumer health apps available today. Some of them are substantial — not many — but there are some. The problem with a lot of apps today is they have a built-in expectation that you will use them. Using health apps requires behavior change but few mobile health app developers seem to realize that. Behavior change will be a top trend in 2012.

7.) Many more app developer Challenges. The Health 2.0 events group received a \$6 million dollar grant from the federal government to create these health app challenges. Many other companies have created their own. What makes this trend so important is that these challenges actually focus developer energy on problems that currently exist in healthcare today. These challenges are focusing on creating apps for people with cancer or for reporting adverse effects of medical devices. Few developers have tackled issues like that on their own accord. These challenges are an important force guiding health app developers today and hopefully throughout 2012.

8.) Investment Dollars Hold Steady. The total investment in mobile health-related companies in 2011 was more than twice as much as total investment in 2010. We counted more than half a billion dollars flowing into mobile health companies last year. As we reported about a year ago, the total investment in mHealth companies in 2010 was \$233 million. There were also only a little more than a dozen announced investment rounds in 2010. In 2011 there were about four times that many. I think we can expect to hear about at least as many deals and at least as much money in 2012, but I think a lot of bets were placed last year and I would be surprised if 2012 outpaces 2011. Curious to hear others reactions to the investment climate for digital health.

9.) Silicon Valley Gets Serious About Healthcare. Silicon Valley companies became very interested in fitness and wellness last year thanks in part to the Quantified Self Movement. This year thanks to groups like Rock Health, which help startups meet mentors with deep healthcare experience, more of these companies are going to shift away from fitness and wellness to focus on other pressing issues facing healthcare. That's not to say less companies will try to capitalize on the burgeoning connected fitness

market — many more will enter that space, too. But Silicon Valley will begin to better understand healthcare in 2012.

10.) Payors offer More Substantial Mobile Services. Late last year Aetna announced that it had acquired Healthgen, maker of the iTriage app. Aetna said the app would be a key component of its consumer engagement strategy moving forward. It would also be a core consumer-facing feature of the health plan's accountable care organization (ACO) solution. Other health plans are beginning to realize that mobile apps can help people navigate the complexities of the healthcare system and health insurance. More health plans will offer substantial apps and not just wellness apps and games with tenuous ties to wellness. Thanks to this trend, by next year there will be many more consumer-facing utility apps for healthcare.

11.) Three Big Mobile Opportunities for Pharma: Marketing, Clinical Trials, Adherence. I covered this in a column earlier this year. I think pharma companies are finally stepping up their mobile games. Proteus Biomedical launched a system called Helius that will be available at Lloyd's Pharmacies in the UK sometime this year. Helius includes a smartphone app, a peel and stick sensor patch, and an ingestible tablet that has a microchip built into it. Helius users swallow the tablet when they take their medication. Once the tablet hits their stomach and breaks down, it sends a signal to the patch on their skin, which tells the app on their phone. Clinical trials is another big area. Pfizer's mobile-enabled clinical trial which it is conducting with Exco InTouch is promising. Finally, pharma companies are going to get more serious about advertising on mobile platforms in the year ahead. The first healthcare-focused mobile ad network launched last year, Tomorrow Networks.

12.) A Home Health Shakeout. This one is a bit of a teaser. Bigger companies are entering the connected home health space and some of the startups working in this space for the past few years are starting to fall apart. By the end of the year, we will see at least a few companies quietly fade away. It's still one of the core markets for mobile health, lots of opportunity, but some of the weaker companies' time has run out.