

The Problem with Personal Health Data



In the growing field of digital health, critics complain that there's too much data. That's kind of like an old person complaining that music is too loud – it may be, but that's the way it is. And it's only going to get louder – we are only going to create more data. So the problem isn't that there's too much data – it's that we aren't yet using it correctly.

This was a clear takeaway from the second annual [Digital Health Summer Summit](#) where I spoke a couple of weeks ago. The Summit, produced by Living in Digital Times, showcased some of the latest digital health innovations and featured speakers from [Qualcomm Ventures](#), [Great Call](#), [United Healthcare](#) and many other leaders in the digital health business.

A myriad of new companies, capabilities, products, services, solutions and business models were discussed – for example, the [WellDoc](#) app which just received FDA clearance as a reimbursable therapy and [MD Revolution](#), a personalized medicine service. Since most of these new developments produce more personal health data, it became obvious that **the primary challenge in digital health today is how to use all that data to help people live healthier lives.**

Real changes in people's lives are going to come about only if we address **three problems with personal health data:**

1. Data needs proper interpretation. A single data point can be interpreted in very different ways. This truth hit home with me in a funny personal moment several years ago when my sister-in-law and I had two very different reactions to a \$25 haircut promotion – coming from a small town in the Midwest, she was shocked that a haircut would be so expensive, while I reacted that \$25 was so cheap compared to the going rate at a New York City salon.

Similar types of varying reactions can result from reporting of a single personal health data point. Is a 79 BPM resting heart rate good? Yes, if you're an elderly, sedentary adult; not so, if you're a young aspiring competitive runner. Data should be provided in context, such as a personalized profile or similar peer groups.

2. Data needs implications.

One limitation of data is that it is descriptive, not prescriptive – it tells you the “what,” but people need to know the “so what.” It’s not enough for an app to report that you consumed 15 grams of fat in your last meal; it should tell you how to burn that fat quickly and how to avoid consuming foods with such high fat composition in the future.

Doctors who’ve developed digital health innovations usually promote their “outcomes” – 90% of patients experienced reduced cholesterol levels, for example. They’re not speaking to what people really want -- “results” – losing weight, living longer, feeling better, looking younger. When data is reported, it should be clear what data means to people and what they can or should do about it.

3. Data needs integration.

Unrelated bytes of data are meaningless – they can also cause confusion and frustration when they seem to conflict. Data needs to be aggregated and integrated into a cohesive picture of health in order to be understood and acted upon. Health is integrated (the thigh bone is indeed connected to the knee bone!), so health data should be integrated as well. People don’t need any more standalone, single-use devices. Nor do they need isolated specialists and independent health resources. Instead of developing more ways to collect data, we need to focus on ways to integrate existing data.

I often talk about how digital health companies must “cross the chasm” in order to grow and succeed – they need to broaden their relevance beyond elite athletes and early adopters like those on Quantified Self and appeal to mainstream consumers. Right now, it’s clear that changing the way data is collected, used and reported is the key to doing so.