

Health Care can best be described as sclerotic - it takes 17 years for an invention to be adopted into standard medical practice. 17 years ago, we saw the commercialization of the internet; now we are beginning to see a transformation of the medical industry, driven by patient empowerment and the digitalization of medical data. Patients increasingly have access to devices and apps that allow them to monitor their health, ranging from the Nike+ GPS run tracker popular among the fitness crowd to wireless insulin monitors among diabetics. Health Dashboard will drive this movement towards modernization and personalization, connecting patients and the data they collect to the doctors and hospitals treating them, ensuring more meaningful interactions and more positive patient outcomes.

### **Business Overview**

Health Dashboard's core business is to manage a hub that connects health tracking devices to hospital health records. The hub will scale to easily incorporate new tracking devices and new EHR systems. A website will be available to patients, allowing them to view their own data, and will also feature devices that patients may need to download or purchase, providing reviews and facilitating the process.

The company's customers will be hospitals. After pilot and beta stages are completed, the clients are charged an flat set-up fee, followed by a monthly subscription based on the number of patients in their network, along with a contract penalizing termination. Revenue may be supplemented by royalties charged to vendors of health tracking devices and apps, particularly those featured prominently. Health Dashboard's unique relationship with hospitals and patients will increase sales for manufacturers of partner devices and apps.

A substantial user base will enable data analysis across empirically similar patients. These correlations between patients will improve diagnostic precision and treatment efficacy. These connections will also foster consensual data-driven patient communities, supplanting competitor sites such as PatientsLikeMe.

By virtue of its platform-agnostic data storage, future goals include moving into competition with existing EHR's, aided by leveraging the company's relationships with hospitals to make beneficial value propositions to customers. Similarly, it may be feasible to facilitate post-market drug studies, charging a commission to pharmaceutical companies, by providing data on treatment results across patient populations.

### **Market Opportunity**

Health care is the modern day equivalent of the pre-Internet era in the 1980s— innovation is slow and expensive, driven by large, well-heeled corporations. The common use of population medicine leads to mismatched drugs, inaccurate dosages, and other problems, often causing harm. Biosensors, iPhone add-ons, and genomics will increasingly provide a flow of data that will cause a revolution in medical practice. Translational medicine will connect to the digital hub of the smartphone, as technology provides the foundation for the movement towards personalized medicine.

Electronic Health Records (EHRs) are currently the electronic standard for tracking health data. They currently do not notably analyze data, nor significantly facilitate communication between patients and doctors. Most of these systems exist offline and handle a limited amount of health information for a given patient. Similarly, the current

web-based EHR's (Electronic Personal Health Records - EPHRs), only offer the patient the ability to track and view health data collected during their doctor visits.

These limitations create an information gap between what doctors know about their patients, and what data would be useful for treatment. Vital data—lifestyle factors (e.g. sleep, nutrition, fitness), biological information (e.g. blood pressure and biomarkers), and genetics—is unavailable to doctors due to an inability to reasonably retrieve and process such diverse and seemingly disparate information. Particularly in cases where a patient sees a different doctor for each of their ailments, transferring information between doctors is laborious, prone to errors, and ineffective. These inefficiencies make for poor clinical assessments and sub-par patient recovery results. Conversely, access to poorly organized information may convolute a doctor's decision, particularly in cases where doctors are not familiar with certain types of data.

### **Market Solution**

Health Dashboard is a cloud-based solution linking the data of patients with doctors, adding health tracking and analysis alongside information of the standard EHR. Doctors' access to this information allows for speedy patient assessments and more educated treatments, and subsequently improved patient outcomes.

The product is an independent web application that communicates bidirectionally with hospital records and health tracking devices, consolidating all of a patient's data and making it easily available to doctors. HD relies on official data from EHR's and high quality health apps that easily measure biomarkers and user-inputted data as outlined above. HD saves this information in a secure cloud, and presents it in user-friendly interfaces, individually tailored to the needs of both doctors and patients.

Such a platform would be revolutionary for a diabetic. The patient's record would be added to HD upon licensing to the hospital. The patient may already track their insulin or some other biomarker, or their doctor may recommend a device with whom HD has partnered. The patient may also track their health subjectively, for example noting how they felt at various points. This data is aggregated within HD and kept updated. At the patient's next appointment, the doctor would be able to easily observe empirical trends in the patient's data and act accordingly, without the need to ask roundabout questions to attempt to ascertain his condition. With more users, trends may be elucidated across similar patients, and a previously unseen course of action may become apparent.

Our currently unprecedented solution will initially be relatively cheap to quickly accrue users and data. Our product is sticky—hospitals lose our data when switching to a competitor, and little incentive to do so monetarily, but also because our platform is easily scalable and can incorporate myriad features. Initially, we will partner with EHR providers to communicate effectively with those platforms, but over time the portable nature of our product may incentive competing against EHR providers, who are fragmented and often offer little incentive over one another.

### **The Market**

The total addressable market for Health Dashboard is growing. The number of smartphone users is increasing, and all hospitals must adopt EHR systems by 2014, or are penalized under Medicare / Medicaid. By then, the TAM for Health Dashboard would

be essentially the same as the number of smartphone users in the U.S. - predicted by eMarketer to be 157 Million.

Preliminary surveys show that 86% of smartphone users would track their health, if requested to by a doctor. Accordingly, the current reachable market is 86% of adults with smartphones with hospitals using EHRs. According to comScore, 110 Million U.S. Adults use smartphones. A 2011 survey conducted by the American Hospital Association showed 35% of hospitals currently have EHRs, so the *most conservative* estimate points to an immediate reachable market of 33 Million U.S. adults.

Out of the country's population, 8.3% have diabetes, which benefits from tracking and is easily tracked. A conservative estimate for the initial nationwide market segment —diabetics—is ~2.6 Million patients. Other market segments are prioritized based on how well each disease can be measured by biomarkers, and what technology is available to do so. Hypertension has a TAM of 31.9%, or 10.5 Million; heart disease is 11.8%, or 3.9 Million; high cholesterol is 33.5%, or 11 Million. These numbers are larger than the numbers of diabetics, but the value added by data is currently also less; but the technology to gather more useful data is growing rapidly, so these make good future market segments.

**[Financials Omitted]**