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**RESEARCH NOTE**

**DATE:** May 9, 2014  
**TO:** Catalyst Investors  
**FROM:** Susan Bihler, Mia Ficerai  
**SUBJECT:** **Connected Health & Wellness Technology Research Note**

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**MARKET OVERVIEW**

Technology has played an increasingly vital role in the recent evolution of the health space, as improvements in sensor technology and a reduction in the cost of production have sparked an increase in the popularity of health monitoring and tracking devices. In addition, increased government involvement in health insurance and delivery (e.g., Affordable Care Act), mobile technology, next-gen networks, Big Data and analytics are all having a disruptive effect on the industry. As risk shifts to providers, business models are changing to become more patient-centric and outcome-focused.

Connected health & wellness technology facilitates interactive navigation through the healthcare system and related health, wellness and preventive programs. A variety of devices and platforms provide the ability to overcome fundamental barriers (e.g., time, location, mobility) that can make the delivery of care and engagement inefficient, fragmented and at times impossible. Connected health & wellness technology promotes the introduction of innovative health, wellness and prevention programs which can allow healthcare and fitness to become more integrated, collaborative and inclusive.

The scope of this research note will focus on wearable technology devices (“wearables”) and the underlying software technology (specifically, corporate wellness software and consumer health/fitness applications) that supports them.

**MARKET OPPORTUNITY**

- **Hardware**
  - **Wearables** – The US connected wellness product market (including digital pedometers, activity trackers, digital weight scales, GPS sports watches, heart rate monitors and sleep quality/diet monitoring/stress management products) was valued at \$1.1 billion in 2013 and is forecast to grow at a 27% CAGR to \$3.5 billion in 2018 (Consumer Electronics Association)
- **Software**
  - **Corporate wellness** – The US payer-sponsored online wellness services market was valued at \$900 million in 2013 and is forecast to grow at a 15% CAGR to \$1.8 billion in 2018 (Consumer Electronics Association)
  - **Consumer health/fitness applications** – The US consumer health/fitness applications market (including online weight loss meal plans, online wellness program coaching services and fitness/wellness app downloads) was valued at \$750 million in 2013 and is forecast to grow at a 10% CAGR to \$1.1 billion in 2018 (Consumer Electronics Association)

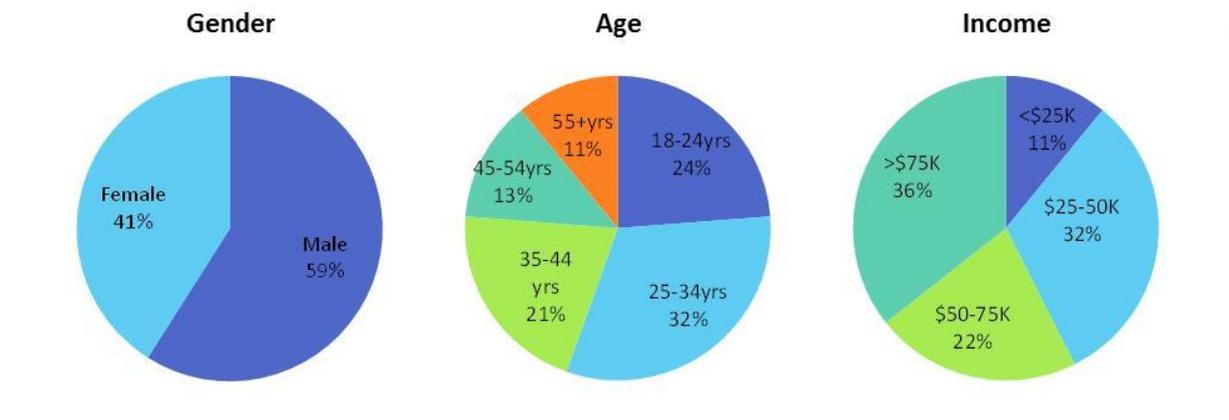
**MARKET TRENDS**

We organized the market trends into three main sectors (wearables, corporate wellness software, consumer health/fitness applications) to align with the connected health & wellness technology market map.

**Wearables** – *Wearable health and fitness technology devices enable and encourage individuals to be more active and lead a healthier lifestyle by delivering activity tracking and monitoring solutions.*

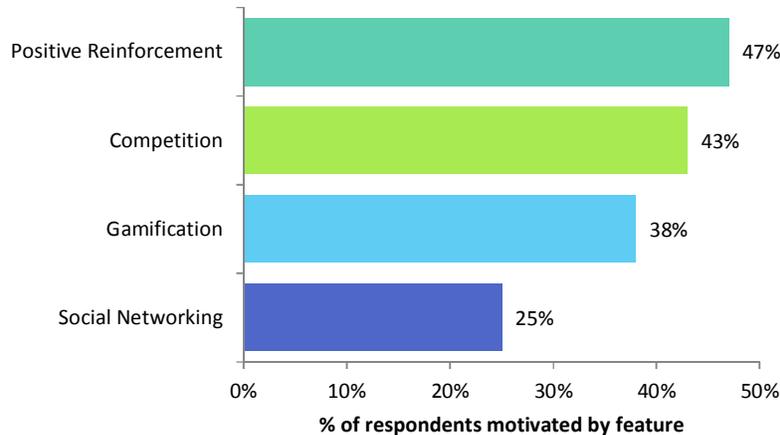
- Growth in wearables is driven by forces in healthcare and consumer markets:
  - Employers, healthcare insurers and healthcare providers want to improve employees’ health in an effort to reduce healthcare costs (approaching 20% of US GDP)
  - Patients/consumers seek to take action to improve their health and quality of life
    - Consumer-centric care is increasingly possible due to new design breakthroughs (i.e., emphasis on creating designs that are fashionable and functional, which fully integrate into wearers’ day-to-day lives), technology advances (e.g., the evolution from the basic band (a device with a specific purpose that serves as an accessory to a smart device and cannot run third-party computing applications) to the smart band (a multi-purpose device that serves as an accessory to a smart device and is capable of running third-party computing applications)) and mass adoption of mobile consumer devices
  - Successful product launches, along with continued investment and M&A activity, will continue to expand the overall market and increase adoption rates among consumers and employers
    - Venture capital firms have recently invested over \$570 million (CB Insights)
    - Key recent M&A transactions include Jawbone’s \$100+ million acquisition of BodyMedia and Under Armour’s \$150 million acquisition of MapMyFitness
  - The ability to connect wearables (as well as other “things”) to companies via smartphones or tablets provides the opportunity to expand the market as businesses exploit new ways to connect with customers
- A survey by the Consumer Electronics Association yielded the following results regarding consumer preferences and user demographics:
  - 75% of consumers own a fitness technology product (note: the broadly defined term “fitness technology product” includes pedometers, health monitors, wearables, fitness applications, etc.), up from 61% in 2012
  - 16% of consumers own a smart watch or dedicated wearable fitness device

**Wearable Device Owner Demographics**



- Almost half of wearable fitness device owners use them daily, while another third use them a few times per week
- Positive reinforcement and competition are the most compelling motivators for less frequent users

**Most Compelling Motivators for Less Frequent Users of Wearable Technology Devices**



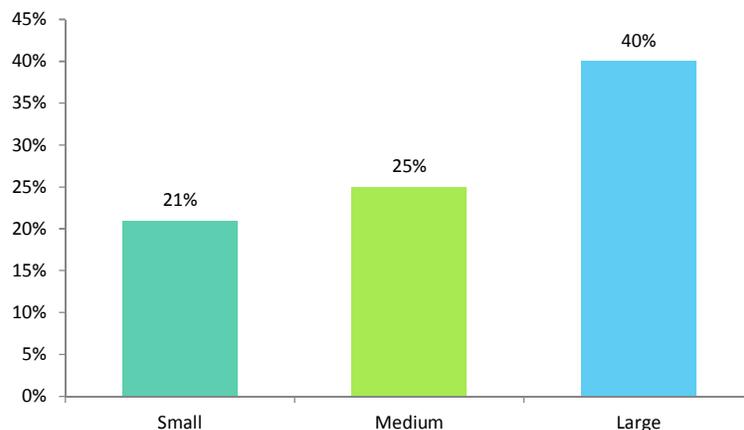
- 60% of adults plan to purchase a fitness technology product for themselves in the next year
  - Dedicated wearable fitness devices show largest gain in purchase intent YoY (3% in 2012 vs. 13% in 2013)
  - The most important features for potential fitness device buyers include Price, Battery Life and Size/Fit (95%+ respondents ranked as “Very Important” or “Important”), while Brand was a less critical feature (only 65% of respondents ranked as “Very Important” or “Important”) (Consumer Electronics Association survey)
- Wearables are expected to become a “key consumer technology” in 2014, with the smart band segment forecast to reach 8 million shipments
  - Although basic bands (e.g., Fitbit, the category leader with 58% market share) have shipped in greater numbers to date than smart bands, the latter category is growing faster (Canalys)
  - Smart bands (e.g., Samsung, the category leader with 54% market share) are likely to consume the functionality of the basic bands and category convergence is expected

**Corporate Wellness Software** – *Corporate wellness software provides platforms to help corporations improve the health of their employees via online exercise portals, mobile apps, hardware, group challenges, reporting and analytics.*

- Companies have embraced corporate wellness programs as an important method of keeping employees healthy and reducing healthcare costs
  - Poor health and chronic disease reduce economic productivity by contributing to increased absenteeism, poor performance and other losses
  - From 2003 to 2010, the cost employers paid for family coverage rose 50% to an average \$13,871 per year (Commonwealth Fund)

- In a recent survey by benefits consultant Towers Watson and the National Business Group on Health, 67% of employers identified “employees’ poor health habits” as one of their top three challenges to maintaining affordable health coverage
- Recent legislature has further incentivized employers to implement corporate wellness programs
  - A provision in HIPAA permits employers to reduce the cost of health insurance premiums by up to 20% for employees practicing healthy behaviors (e.g., refraining from smoking, maintaining a healthy weight, keeping blood pressure and cholesterol levels low), and companies benefit from increasing the number of employees who qualify for the discount
  - The Affordable Care Act is shifting the healthcare business model away from “fee for service” to “pay for performance,” increasing the pressure on healthcare insurers and providers to address the underlying causes of chronic disease (e.g., poor nutrition, sedentary lifestyles)
- Many employers regard corporate wellness programs as an effective tool to contain healthcare costs and, thus, a viable business strategy
  - Almost half (44%) of all employers that offered wellness programs believed that they were effective in reducing the firm’s healthcare costs (2010 survey by the Kaiser Family Foundation and the Health Research and Educational Trust)
  - Employers are moving to Consumer Directed Healthcare Plans with comprehensive wellness programs to shift more healthcare responsibility and costs to employees
    - New policies and wellness programs are designed to help employees engage more actively to improve their health and manage health-associated costs
    - Personal data tracking is revolutionizing the employer wellness approach by making it easier for employers to implement, monitor and analyze corporate wellness programs and simplifying the experience for employees
    - 53% of US companies have at least one employee dedicated to managing wellness programs (2013, Optum Research)

**US Employers Offering Wellness Programs, by Company Size (2012, Optum Research)**

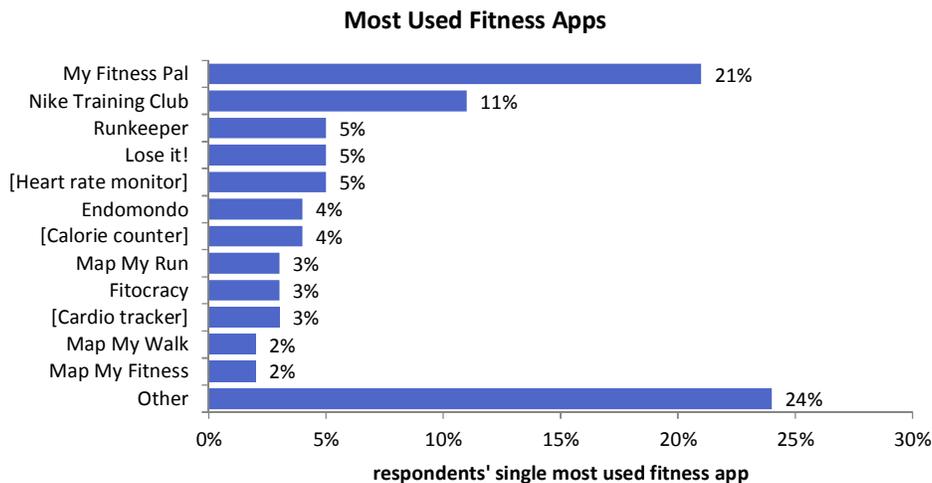


- In addition to employers, health insurance issuers are increasingly incorporating wellness programs into their coverage products
  - Among employers with fewer than 200 employees that offered wellness programs, 59% did so because the programs were part of the insurance coverage provided by their health plan (2010 survey by the Kaiser Family Foundation and the Health Research and Educational Trust)

- Corporate wellness is increasingly being targeted by a mix of specialist- and consumer-focused device vendors, and competition will also extend to software applications on mobile devices
  - Over the next five years, more than 13 million wearable devices with embedded wireless connectivity will be integrated into wellness plans offered by businesses
  - Vendors including FitBit, BodyMedia and FitLinxx are developing products and strategies with an eye to the corporate wellness market, and adoption will depend on forming partnerships with existing players
    - FitLinxx embeds their technology in corporate wellness programs to keep people engaged and motivated (their partners yield 70% average engagement rates vs. 40% participation without technology)
  - While some device vendors are hoping that strong consumer awareness will drive corporate wellness adoption for their products, the most influential parts of the healthcare value chain are healthcare insurance companies, healthcare providers, VARs and the corporations providing wellness programs

**Consumer Health/Fitness Applications** – *Consumer health/fitness applications offer health- and fitness-related services for smartphones and tablet PCs. We will focus on applications designed to help consumers make healthier choices in their everyday life by offering advice about fitness or nutrition.*

- 54% of consumers are actively putting effort into learning more about their personal health risks and preventing health problems (Deloitte Center for Health Solutions)
- After dedicated wearable fitness devices, fitness apps demonstrated the second-largest gain in purchase intent YoY (6% in 2012 vs. 13% in 2013)
- Fitness app users rely on free options and stick to a couple of primary apps
  - Average amount spent on fitness apps in past year: \$8.57; 71% of respondents used free apps
  - Average number of apps used: 1.82 apps; 48% of respondents used one app



- General fitness apps (e.g., My Fitness Pal, Nike Training Club) have the broadest user base among respondents
- Over one quarter of women and one fifth of men have downloaded such apps
- Apps are most used in the US and Canada, where one-third have downloaded such apps, vs. less than one quarter of respondents elsewhere

## INVESTMENT THEMES

**Corporate Wellness Engagement:** Given the commoditization of wearables and our thesis that the technology contained on the devices will eventually be available on smartphones, we do not recommend pursuing the wearables market. We are more interested in exploring the corporate wellness management software platforms that provide recurring revenue streams while partnering with wearables companies to leverage their sensor and tracking hardware. The subsector is attractive to Catalyst in terms of growth opportunity given the demand for corporate wellness solutions delivered via simple, accessible platforms and the low penetration rates of small- and medium-sized corporations (21% and 25%, respectively).

Interesting companies within the subsector include **Keas**, a personalized employee health and wellness platform, and **ShapeUp**, a global online wellness platform that unites comprehensive health challenges, social networking tools, health coaching, fitness tracking and financial incentive management.

**Unique Consumer Applications:** While we are cognizant of the risks associated with consumer applications (i.e., the challenge of picking a “winner” among more than one million apps in the Apple App Store), we are interested in learning more about selected health and fitness apps that provide the features users have identified as particularly motivating (e.g., competition and gamification). Because apps are a high-growth segment of the \$10+ billion mobile industry, (download and premium feature revenue is expected to grow tenfold within a decade) we think it is worthwhile for Catalyst to target unique applications which are able to demonstrate a history of customer traction and strong unit economics.

Interesting companies within the subsector include **GymPact**, an app that gives cash incentives to encourage its users to go to the gym, and **Strava**, an app that lets athletes share, compare and compete with personal fitness data.

**Mobile Health:** As healthcare IT moves to the cloud and upgrades its architecture to provide more flexibility, the “healthcare everywhere” imperative is facilitating greater transparency and visibility into healthcare costs. We are interested in learning more about the mobile healthcare opportunity, including platforms and applications that facilitate doctor and patient communication (e.g., apps for diabetics that automatically send glucose readings to their primary care physicians) and combine mHealth with electronic medical records (e.g., allowing doctors to keep accurate records that are easily accessible).

Interesting companies within the subsector include **CoverMyMeds**, a solution for physicians and pharmacists to complete prior authorization and other insurance coverage determination forms for various drugs and drug plans, and **Privia Health**, a wellness care management company that combines web and social networking technologies to enhance doctor-patient relationships.