Key Developments in the Connected Health Markets

A Parks Associates Whitepaper

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Five Developments to Reshape the Connected Health Market

The ecosystem for connected healthcare is unique in comparison to other sectors of the consumer-based Internet of Things (IoT). This growing market relies heavily on multifunctional devices such as the smart watch and smartphone for many services, but there are unique devices—such as oximeters and insulin pumps—with specific functions that benefit from connectivity and the resulting data analytics.

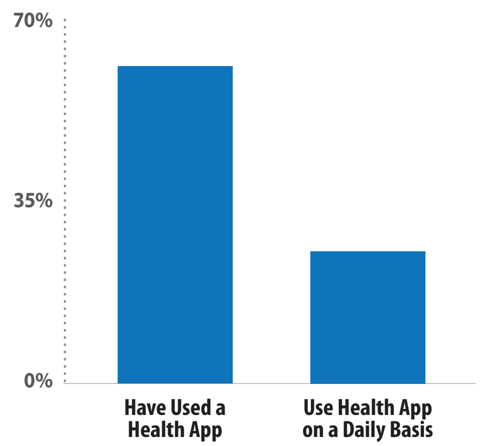
Form of payment is also an important and complex consideration, for insurers, employers, and government agencies can be involved alongside the consumer, device manufacturer, and service provider. The pressure is on many healthcare players to improve outcomes through cost savings and better care, and they are investing in connected devices and innovative technologies to achieve these business goals.

Beyond greater efficiency and improved processes, better consumer engagement is a key factor the healthcare ecosystem players need to build into these new healthcare business strategies.

The wearables market has experienced strong early growth, with Fitbit users in particular showing strong initial engagement in fitness tracking and app usage, but the market is also tasked in targeting consumers with chronic conditions, who account for a huge chunk of the nation's healthcare expenditures. These consumers, as Parks Associates data shows, are not always as motivated to adopt and use these new technologies.

Health App Usage

Among 55% of U.S. Consumers in Broadband Households with a Chronic Condition



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> 30% of consumers ages 18-24 who have chronic conditions do not have a primary care doctor, which is a warning sign for the industry.

The early adopters of new connected health technologies largely represent health-conscious, but not necessarily unhealthy, consumers. A key challenge for the industry in 2016 is to develop strategies to engage other segments of the population. As 55% of U.S. broadband households have a head of household with at least one chronic condition, these segments account for a large portion of the U.S. population, part of what the speakers and analysts at Connected Health Summit termed the **"fat middle"** in the total addressable market for connected healthcare solutions.

"Health insurers have expanded their preventive care and wellness service offerings significantly in recent years; care coordination has been the focus of newly minted ACOs since 2012. However, these efforts have yet to change consumers' awareness or expectations for health insurance benefits or health coordinator services, as our consumer data show.

"It is high time that the health business community backs up its claim to deliver consumer-centric care through action, and more importantly, in an affordable way."

Harry Wang, Director of Health and Mobile Product Research, **Parks Associates**

Health Developments

Consolidation

Health and wellness apps are key use cases on smartphones and tablets. The strong growth and tremendous potential in the healthcare markets have prompted new rounds of innovations and consolidation. **In 2016, consolidation in the payer and provider markets will continue,** helping reduce market fragmentation and increase the scale of digital health solution deployment.

Outcome-based Values

The shift to pay-for-performance will incent care providers to invest in scalable and effective digital health solutions. The value proposition for digital health solutions will increasingly become outcome-based, and solution providers will be asked to participate more in a risk-sharing contract. This trend will require new strategies to engage the most at-risk (and high-cost) patients.

Pathway for Innovations

As innovators demonstrate their solutions' value to the healthcare industry, the incumbent players will become more active in the digital health market via partnerships and mergers and acquisitions. The digital health entrepreneur market will experience a shakeup in the next 2-3 years.

Body-area Networks

Sensor technology will experience significant strides forward in the next five years; body-area networks (BANs) will become affordable solutions and add significant value to the digital health markets.

Care Coordination

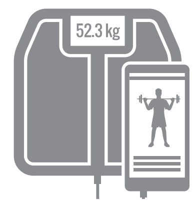
Low awareness among consumers hampers utilization of wellness benefits. For example, **only 6% of health insurance customers** are aware that their insurers offer discounts towards the purchase of certain fitness tracking devices. Healthcare companies are under pressure to improve their engagement efforts, especially among customers with chronic conditions. As a result, the care coordination function will become more sophisticated and personalized in 2016, as more health data will converge and smart algorithms will play a key role in personalized care delivery.

The top innovators will find their IPO path or be acquired, and the struggling entrepreneurs will find access to capital market closed.

Tracking Health Conditions in America

- **26 million Americans** suffer from type I or type II diabetes.
- **Almost 14 million Americans** have severe chronic respiratory problems such as COPD.
- **68 million Americans** have been diagnosed with hypertension.

~ 66% of the American population *is either* **overweight or obese.**

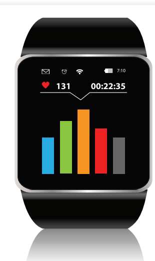


Tracking Wearable Digital Health and Wellness Devices

Smart watch adoption *has nearly doubled,* from **4%** of U.S. broadband households *at the start of 2014* to **7%** now.

- **10% of U.S. broadband households** plan to buy a smart watch by midyear 2016.
- **33% of U.S. broadband households** own a digital health/wellness device.
- **10% of Spanish broadband households** own a smart watch, followed by **8%** in the U.K., **7%** in Germany, and **6%** in France.
- **10% of Western European broadband households** plan to purchase a smart watch within the next 12 months.
- Parks Associates projects that five categories—weight scales, blood pressure monitors, glucometers, pulse oximeters, and insulin pumps—will collectively generate nearly **17 million connected unit sales** in 2019.
- **Fitbit is the clear leader** in the digital fitness tracking category with more than 50% market share.

12% of Spanish broadband households plan *to purchase* a **smart watch in the next 12 months,** while **8%** in **the U.K.** and **10%** in **Germany** and **France** *plan to make this purchase.*



Tracking App and Portal Usage

Two-thirds of consumers engage in a **health app** or **portal activity** *on a monthly basis.*

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- **15% of smartphone users** have a fitness tracking app that they use at least weekly.
- **70% of fitness tracker owners** use their device's app at least weekly.
- **More than 50% of smartphone or tablet users** look up food, diet, and nutrition info via an app at least once a month.
- **Roughly one-half of consumers** engage in a health portal activity on a monthly basis.
- **40% of insured consumers** are not aware of any wellness benefits from their health insurers.
- While more than 60% of consumers have at least one chronic condition, **only 20%** are concerned about it.
- **One quarter of consumers** are interested in using a health portal to review doctors' notes.
- **Broadband households with children** are more likely to engage in health portal activities.

Tracking Privacy Concerns

23% of U.S. broadband households **have** *privacy and security concerns related to usage of* **connected health devices.**

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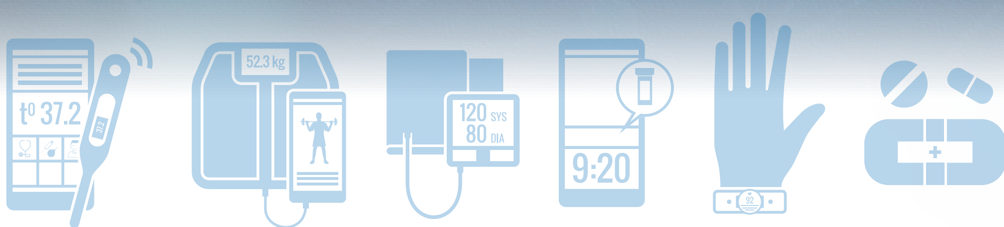
- **23% of U.S. broadband households** have a similar level of concern about fitness tracking devices.
- **35% of consumers** worry their personal health information will not remain confidential if online.

CONNECTED HEALTH TRACKER SERVICE

Core Research Areas

Consumerism of Healthcare

Digital Disruptions in Healthcare Service Delivery



Nearly **30%** of U.S. broadband households own a connected health device.

Over **50%** of U.S. broadband households use at least one health app on a monthly basis.

Health Consumer Segmentation

Developed by Parks Associates

30% Unhealthy *and* **In Denial**

27% **Challenged** *but* **Mindful**

23% Healthy *and* **Engaged**

20% **Young** *and* **Indifferent**

Understanding Consumer Adoption of Connected Health Devices and Services

Parks Associates connected health research addresses:

- Consumer adoption and usage of healthcare devices and services, including five years of consumer survey data
- Case studies of care providers leveraging technologies to change consumer behaviors
- Market entry, business models, and engagement opportunities for care providers, device makers, fitness companies, and health programs

Headed by **Harry Wang, Director, Health & Mobile Product Research, Parks Associates**, a recognized expert in digital health research since 2005.

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