

The Real Healthcare Changes On The Way

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Healthcare has been a **hot topic** since the passage of the Affordable Care Act, now referenced by both parties as “**OBAMACARE.**”

Efforts to repeal it ebbed briefly after an unsuccessful Supreme Court challenge in June 2012, and all sides turned to the November elections as the ultimate referendum on the fate of the legislation.

With President Obama’s successful reelection, *Obamacare will remain largely intact and have a sweeping impact on the U.S. healthcare system* when most terms are phased in during 2014. However, the healthcare industry was bound to experience fundamental changes, regardless of the election’s outcome.



The **healthcare industry** will experience **SOME** levels of **VOLATILITY** in the next two years.



The theatrical back-and-forth politics over this piece of legislation during the last three years, in Parks Associates’ view, **has distracted businesses** from paying attention to and taking advantage of the underlying trends in the healthcare industry.

Several major changes, which are not rendered in a top-down fashion by politicians, are **reshaping healthcare delivery, redefining quality and access, and redistributing healthcare costs.** Though the last aspect—redistributing healthcare costs—is far from certain to have a positive impact, it is the hope of the healthcare industry that shaking up the status quo is the beginning of a path to a more sustainable healthcare financing for this country.

A New Focus on Patient-centered Care

The main change is the shift in the healthcare industry to a patient-centered approach in care delivery.

Consumerism is not new, but treating patients not as passive recipients of care but as active participants of personal care management is a new height of consumerism. At the core of the patient-centered care approach is patient engagement, which involves patient interaction during and after care episodes and promotes long-term behavioral changes that lead to better health outcomes. Motivation for patient engagement is partly due to compliance with government requirements (such as avoiding readmission penalties), but the industry also realizes the potential to deliver more personalized care and cut wasteful spending via this patient-centered approach is huge.

PATIENT-CENTERED CARE

is also the culmination of 20 years of experiments with the disease management (DM) practice.



When DM services were launched in the early 1990s, non-believers questioned everything from ROI to patient stratification methodology. But the DM model has survived the test of time and thrived by adapting operational and business models to meet client needs. The DM industry taught health insurers how to manage high-cost/high-risk patients, showed self-insured employers that population health programs can cut employee absenteeism and reduce claim costs, and demonstrated to Medicare Advantage administrators that senior fitness and wellness services offer both health benefits to seniors and fiscal benefits to the government.

Today, third-party DM vendors have lost their dominant position in an industry they helped create because all large health insurers today have an internal DM service division. The practice has also spread to other countries, indicating the DM practice is accepted by the healthcare community (no matter what label or branding it has).

THE NEXT PHASE IN DM EVOLUTION IS THE PATIENT-CENTERED CARE MODEL.

Part of the reason that Parks Associates is so bullish about patient-centered care is simply this:

The healthcare industry has nearly run out of time and options to rein in escalating healthcare costs.

The Affordable Care Act terms this model as the accountable care organization (ACO) model, but in essence, its development predates this legislation.

The patient-centered care is the best option on the table. This is truly a bipartisan solution to a national problem.

HEALTHCARE PROVIDERS AND HEALTH INSURERS WILL LEAD THIS NEW PHASE.

They have grown comfortable with a more proactive approach to patient care, willing to collaborate in order to provide care when, where, and how patients prefer instead of limiting patients' options based on their own resources. The coverage will be more comprehensive, addressing needs across the continuum of care instead of targeting a single disease or offering a standalone procedure.

Healthcare providers and insurers may seek help from third-party DM companies and other non-acute care providers including home health agencies and retail clinics. Such a collaborative approach will be the signature feature of the patient-centered care model. Enhanced further with government's incentives and penalties, this model will explode in popularity in the next ten years.



Parks Associates tracks various private and public initiatives practicing patient-centered care.

PATIENT-CENTERED CARE INITIATIVES (3Q 2012) ¹		
Category	Number of Programs	Number of Patients to Benefit
Patient-Centered Medical Home (PCMH)	70	Around 500,000
Accountable Care Organization (ACO)	276	About 3.5-4 million
CMS Demonstrations/Pilots	7	More than 700,000

DO CONSUMERS WANT PATIENT-CENTERED CARE?

Although comprehensive data are scarce², Parks Associates has a few data points to share³.

In 2010 ... About 10% of U.S. health consumers reported that they interacted with their doctor in a virtual way—email, online chat, or video conferencing.

In 2012 ... With more virtual care options offered from health insurers and health networks, this percentage will rise in 2012.

... About one-fourth of consumers who visited health websites expressed strong interest (ratings 6-7 on a 7-point scale) in communicating with an online physician other than their primary care doctor.

In 2012 ... In 2012, this percentage jumped to 30%.

In 2011 ... Among health consumers with at least one chronic health problem, 27% wished they could have a personalized action plan from their healthcare providers to address their health management challenges.

These data point to growing interest among consumers to receive care with convenient access and personalized options. They are also open to new provider types as part of the care management experience.

Consumerization of Health IT

If the patient-centered care is a significant change on the supply side, its counterpart on the demand side is the consumerization of health IT.

Healthcare institutions will continue to upgrade their IT infrastructure and invest in clinical software to improve worker productivity, but with more consumers demanding user-friendly solutions, care providers are willing to invest in areas where the patient/consumer experience can be enhanced and their behaviors can be influenced positively, both short and long term.

¹ Parks Associates estimates, CMS documents

² Parks Associates is currently running a new consumer survey "Managing Care Through ACOs," which tests the patient-centered care appeal among multiple consumer/patient populations.

³ All the data points come from Parks Associates' 2010 survey "Personal Health Tools and Applications," 2011 survey "Mobile Health: Uptake by Consumers and Care Providers," and the 2012 Market Focus "Online Health Services."

One of the immediate influences from the consumerization of health IT trend is the birth of the health entertainment market.

As Parks Associates defines it, **this market borrows successful ingredients from the entertainment industry**—*aiming to create a fun, enjoyable, and social experience while promoting a cool and technologically advanced reputation.*

Health entertainment services focus on the following care aspects:

- People's health condition as well as their lifestyle choices such as food and diet
- Physical well-being complemented by mental wholesomeness
- Technology-driven monitoring tools and social connectivity for support & coaching

Case Study

Online health gaming service provider Lumosity has been running a successful subscription model for more than six years. The company offers more than 40 brain and health-related games, developed with clinical support, and it has more than 22 million users as members, with an estimated 4-6 million paying customers who spend \$79 for an annual subscription.



BUSINESS SUMMARY

Founded in 2005, Lumos Labs runs a subscription-based brain game portal Lumosity.com. Based on the user milestones that the company disclosed, Parks Associates estimates that Lumosity.com has more than 20 million registered users, of which 4-6 million are active users of the portal and payers of the service. It is the largest online brain game portal.

Parks Associates estimates that Lumos Labs earned approximately \$80-90 million in revenue during 2011.

The company has raised a total of more than \$60 million from venture firms and is considering an IPO.

PROGRAM & SERVICE

Users have unlimited online access to 35+ games that help players sharpen memory, focus attention, reach peak performance, and enhance creativity. Examples include:

Word Bubble: A game testing users' vocabulary—players guess words from a three-letter stem to move as many bubbles to the top as possible

Lost in Migration: A game testing attention—when a flock of birds appears on screen, use the arrow key that corresponds to the direction of the bird in the center

Memory Matrix: A game testing memory—after a tile pattern appears on screen, try to remember and repeat the pattern in a new matrix

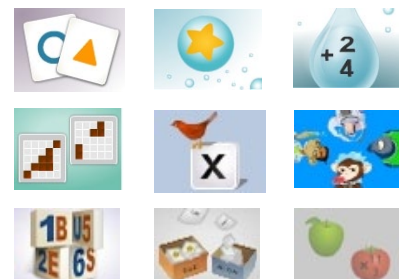
Rain Drop: A game testing problem solving—players solve the math problem inside a rain drop before it touches the ground

BUSINESS MODELS

Users have a 7-day free trial before they need to pay \$9.99 per month or \$79 per year for access to the games online.

It is also in discussion with employer groups to make the service available as part of corporate wellness initiatives.

The company has partnered with researchers from Stanford, UCSF, Berkeley, and Harvard and business organizations such as Touchstone Health, Blue Cross Blue Shield, and Medi-Care First.



Mobile Health & Social Networks

Facebook is still the largest social network for a variety of consumer needs, including health and well-being, but health and wellness online portals with strong mobile and social networking elements have sprung up in significant numbers. Although some lack a clear path to business success, and Parks Associates expects the failure rate to peak in the next 12 months, there are still several prominent start-ups with sound business concepts and seasoned management teams that can execute successfully in the long term. An example is Audax Health that combines health education, personal wellness management, PHR, and health games into an all-encompassing social experience for consumers.

Although some of these health entertainment programs and services target consumers/patients directly, a bigger opportunity is for health institutions to build their patient engagement services using popular or promising online health destinations such as Lumosity and Audax Health.

Health entertainment ventures will eventually succeed utility-driven patient portals

(websites set up by physician groups and health insurers for patients to schedule appointments, request prescription refills, check lab results, etc.)

and personal health record services

(such as Microsoft's HealthVault).

Some health institutions have already tested these new types of services through partnerships. Aetna, for example, has partnered with MindBloom to offer the latter's social health gaming service as a member benefit. Highmark BCBS is a customer of ShapeUP—a social wellness service provider offering a year-round calendar of challenges and events that motivate users to exercise and follow healthy habits. These early collaborations could lead to direct investment or in-sourcing from health institutions and epitomize an important aspect of the consumerization of health IT trend.

Company Profile

AUDAX HEALTH—Social Health Portal

The Audax Health Social Health portal, launched in early 2012, is built on its end-to-end Careverge service platform that makes new health application/service creation and integration easy, secure, and cost effective.

The portal is built with four core ingredients to engagement:

SOCIAL—connecting with people “like me”

MOBILE—meeting members wherever they are

PERSONAL—tailoring health information to individual interests

PRIVATE—creating a patient-centric HIPAA compliant experience

Specific features on the Audax Health portals:

HEALTH INFORMATION/EDUCATION—Users can watch health-related videos by topic, read articles curated by Audax Health's content personalization engine, and access user-generated posts and comments. All the linked outside content is presented under the Careverge framework, retaining the Audax Health brand experience.

PERSONAL GOAL SETTING & TRACKING—Users can personalize their health and lifestyle goals ranging from eating healthy food to quitting smoking. For each of the goals set, the Careverge engine compiles relevant information to assist the user in accomplishing his or her goal. The social element allows users to compete with their friends and family members or to set a common goal/challenge for the group to achieve/overcome.

PERSONAL HEALTH RECORD—During the registration process, users answer a few questions that become their health-risk assessment in their personal record. The Careverge data engine has the ability to support third-party device/data integration. The company is working on partnerships to allow fitness tracking devices, mobile phones, and network-connected medical devices to transfer user-generated health data to the Careverge service.

PRIVATE AND SECURE SOCIAL NETWORKING—Activity Feed is a social feature of Careverge. Users can post a status update or ask a question, check on other users' goals, post a discussion topic, reply to discussions, and conduct many other user activity updates. There are also many communities of specific health-related topics such as asthma, Autism, cancer, diabetes, and weight management.

GAMIFICATION AND MARKETPLACE—Users are automatically in a reward program in which their healthy behaviors earn them virtual rewards such as coins, points, and bonuses that can be converted at Careverge's marketplace for entries in a raffle for prizes such as workout gadgets.

CLIENT DASHBOARD—This application helps business customers monitor population health management programs across more than 170 engagement metrics such as frequency, duration, communication channel preference, and Careverge activity profiles (communities, goals, reminders, discovery).



Smart Health & Wellness Devices

Finally, growing adoption of connected digital devices for health and wellness is another important change driving the consumerization of health IT.

These devices allow health information to be easily accessed and shared, foster ubiquitous communications between care providers/givers and patients, and make patient interaction and engagement accountable and measurable. The Internet plays a big role in this process, as do APIs, video conferencing, social media, and “big data” analytical software.

Since 2008, **innovations in mobile consumer electronics** such as smartphones and tablets, along with increasing use of “apps,” have greatly expanded the abilities of consumer and care providers to do more in personal health management.

While smartphone and tablet use for health purposes is well documented, sales of new-generation fitness and wellness devices leveraging the same digital technology and Internet connectivity are also gaining momentum.

THE NEW BREED OF WEARABLE FITNESS DEVICES SUBSTANTIALLY IMPROVES USABILITY.

Devices come in different shapes and colors, have built-in networking protocols, and feature software that allows users to easily review progress. Most also offer an online user account so that users can log in from any Internet-connected platform to view, compare, and share their fitness data. These online user accounts are designed either as an app or a Web portal incorporating social networking features and tie-ins with popular social applications such as Facebook and Twitter.

These new wearable devices are offered by both well-known brands and start-ups. Nike has been a pioneer in offering connected fitness tracking devices. Its initial foray is the Nike+iPod collaboration in which Nike’s running shoes feature embedded sensors that stream fitness data to Apple’s iPod music players. Its latest endeavor is a solo play. Nike’s Fuel band, priced between \$125 and \$149 at retail, is a wristband-shaped pedometer unveiled in January 2012. Fitbit, a San Francisco-based start-up, launched its namesake fitness tracking device for \$99 in 2009.

Both fitness tracking devices reportedly earned very encouraging initial sales figures, spurring interest from both established players such as Adidas and Jawbone and start-ups such as Wellcore and Runtastic.

Parks Associates estimates that these new wearable smart fitness devices brought in \$175 million in 2011 for the U.S. market and will grow at a five-year CAGR of 50% to become a \$1.3 billion industry in 2016.

Fast adoption of these smart health and wellness devices will fuel the use of online health portals and mobile wellness apps, further enhancing the effectiveness of personal health management from consumers themselves or offered by healthcare institutions.

Nearly one in four



U.S. mobile phone owners

are interested in a mobile app supporting communication with their doctor.

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CONCLUSIONS

PATIENT-CENTERED CARE redefines healthcare delivery, and over the long term, it will alter the allocation process of healthcare dollars.

CONSUMERIZATION OF HEALTH IT improves consumer care access and changes care providers' approach to engagement with current and future patients.

GROWING USE OF SMART HEALTH & WELLNESS devices not only empowers consumers to become more responsible for personal health but also paves the way for care providers to interact with patients and understand their health behaviors at a deeper level.

Parks Associates has witnessed deepening impact of these changes on healthcare institutions, consumers, and health professionals during the last three years and believes these positive forces bring hope to the ailing U.S. healthcare system.

ABOUT PARKS ASSOCIATES



Parks Associates is an internationally recognized market research and consulting company specializing in emerging consumer technology products and services. Founded in 1986, Parks Associates creates research capital for companies ranging from Fortune 500 to small start-ups through market reports, primary studies, consumer research, custom research, workshops, executive conferences, and annual service subscriptions.

The company's expertise includes new media, digital entertainment and gaming, home networks, Internet and television services, digital health, mobile applications and services, consumer electronics, energy management, and home control systems and security.

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INDUSTRY EXPERTISE: Digital Health Products and Services, Portable and Mobile Access Platforms and Applications, Digital Imaging Products and Services

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