



Promotion of personal fitness, nutrition and general well-being through social media is an emerging approach to prevent and manage chronic diseases. These new social media sites engage and educate patients in personal health care, connect patients with their peers, implement evidence-based interventions, and change behavior over time. For some, their goal is to give simple daily challenges or “micro-actions” that add up to significant health improvements over time, all the while earning points and developing relationships with others on a similar pursuit. In some cases, points can be exchanged for discounts and rewards on consumer goods.

Many of these technologies leverage existing social media platforms like Facebook and Twitter and can be accessed on different internet-connected devices such as personal computers, smartphones or mobile phones. There are many social media sites that promote health in some way. A snapshot of sites on the market today includes MeYou Health, DailyFeats, BodiMojo and Zamzee.

Use Case

- Health-promoting social media target the masses rather than individual disease populations by promoting healthy actions aimed at addressing determinants of health and are free to the consumer.
- The focus for each site varies, but all of them connect patients and provide a health platform for inspiration and accountability. They take a holistic approach to health care and view many chronic diseases, such as diabetes and obesity, as systemic issues that require changes in how people live their daily lives.
- They have only been available to the public for the past few years, but the number of users has grown significantly in a short period of time. Based on interviews with two manufacturers, user demographics slightly skew towards women between the ages of 25 and 65.¹
- A survey reported that use of web-based content, like wikis, blogs, and social networking, has significantly increased over the same time period, especially among safety-net populations and the chronically ill.
 - Minority adults are more likely than their White counterparts to use cell phones and mobile devices to access the Internet, use instant messaging, engage social networking sites, look up health information, and track or manage their health with specialized applications.²
 - Social network site users who are chronically ill are more likely to gather health information from these sites compared to those with no chronic conditions (20 percent vs. 12 percent).³
- Some of these sites have targeted or plan to target health plans, employers and physician groups to promote healthy behaviors among their employees, members and patients.
- In the near future, one vendor plans to leverage its technology to partner with pharmaceutical companies to incentivize and monitor healthy behaviors and compliance to care regimens of patients, while gathering data for the FDA.
- These platforms have significant public health implications, using social networks to gather clinical data which can be leveraged to implement population-based interventions.

¹ Interviews with DailyFeats and MeYou Health, Conducted 12/11.

² Pew Internet and American Life Project (2011). Who's On What: Social Media Trends Among Communities of Color. Slideshare: January 25, 2011. Retrieved from: <http://www.slideshare.net/PewInternet/whos-on-what-social-media-trends-among-communities-of-color>. Accessed November 2011.

³ Fox, S (2011). The Social Life of Health Information, 2011. Pew Internet and American Life Project, May 12, 2011. Retrieved from: <http://pewinternet.org/Reports/2011/Social-Life-of-Health-Info.aspx>. Accessed November 2011.

Clinical Benefit

- The clinical benefit of health-promoting social media has not been publicly quantified. Anecdotal data from vendors suggest positive results; however, no published data were available when this report was written.
- One vendor is planning a randomized control trial (RCT) of over 1,000 new members to demonstrate efficacy, while another vendor is currently surveying the impact of its product on the development of health habits on a weekly basis.
- Field tests of different types of social media platforms have shown that individuals using health-promoting social media have improved clinical outcomes compared to those who do not:
 - Smokers using the smoking cessation website, QuitNet, which includes social support through thread platforms, email and chat rooms, had a self-reported 7-day point prevalence abstinence rate of 7 percent and 30-day point prevalence abstinence rate of 5.9 percent after 3 months. This study had no control, but according to the CDC less than 5 percent of Americans will maintain abstinence for 3 months (n=385).⁴
 - Adults with Type 2 Diabetes or coronary heart disease enrolled in an online community for a walking program involving pedometers showed greater engagement in the program over a longer period of time (n=324).⁵
 - Teens demonstrated improved attitudes towards physical appearance after one month (n=178).⁶
- Scientists at MIT and Harvard are investigating the optimal social network structures to facilitate the spread of health information; their findings have been the building blocks of these sites:
 - One study suggests that individual adoption of healthy behavior was much more likely when participants received social reinforcement from multiple neighbors in the social network (n=1528).⁷
 - A controlled study on the spread of health innovation suggests that similarity in social contacts significantly increases the overall adoption of new health behavior among obese populations.⁸
- These platforms have shown value from a public health perspective in their ability to gather patient data. An international online diabetes community was overwhelmingly receptive to using a “Facebook-like” platform to chart and share A1C levels; 81.4 percent of users shared their data on the community display.⁹

Financial Analysis

- A robust analysis of financial benefits has not been completed to date.
- These sites are free to users, making them almost universally accessible, even to safety-net populations. Individuals only require internet access and 75 percent of adults in the U.S. go online.¹⁰
- Vendors have employed varying levels of marketing to recruit users, some investing little to no resources in marketing while others have invested in targeted marketing on Facebook.

⁴ Cobb, N (2005). Initial Evaluation of a Real-World Internet Smoking Cessation System. *Nicotine Tob Res*, 2005; 7(2): 207–216.

⁵ Gibbons, MC (2011). Exploring the Potential of Web 2.0 to Address Health Disparities. *Journal of Health Communication*. August 15, 2011. Retrieved from: http://www.tandfonline.com.ezproxy.library.tufts.edu/doi/abs/10.1080/10810730.2011.596916?url_ver=Z39.88-2003&rft_id=ori:rid:crossref.org&rft_dat=cr_pub%3dpubmed. Accessed November 2011.

⁶ BodiMojo (2011). BodiMojo launches “My Confidential,” Girls-Only Confidence Dashboard. Press Release: October 30, 2011. Retrieved from:

<http://www.bodimojo.com/press-release/bodimojo-launches-my-confidential-girls-only-confidence-dashboard.htm>. Accessed November 2011.

⁷ Centola, D (2010). The Spread of Behavior in an Online Social Network Experiment. *Science*, 2010; 329(5996):1194-1197.

⁸ Centola, D (2011). An Experimental Study of Homophily in the Adoption of Health Behavior. *Science*, 2011; 334:1269-72.

⁹ Weitzman, E et.al. (2011). Sharing Data for Public Health Research by Members of an International Online Diabetes Social Network. *PLoS ONE*, 2011; 6(4): e19256.

¹⁰ Fox, S (2011). The Social Life of Health Information, 2011. Pew Internet and American Life Project, May 12, 2011. Retrieved from: <http://pewinternet.org/Reports/2011/Social-Life-of-Health-Info.aspx>. Accessed November 2011.

Barriers to Adoption

- *Limited Data:* Clinical evidence and financial return on investment (ROI) are unknown at this point in time.
- *Privacy Concerns:* Sharing clinical data in the public domain has inherent risks and users may be unaware or overlook the risk if they are desperate for information or support.
- *Cultural Resistance:* Patients need to be interested in leading healthy lives and choose to engage in health-promoting social media. Similarly, a subset of patients may be hesitant to share their personal experiences online.
- *Questionable Content:* Physicians are hesitant to recommend these sites to patients because they can't "trust" the content because it is not monitored.
- *Supporting Technologies:* Users require supporting technologies such as internet connectivity, personal computers, mobile phones and social media accounts such as Facebook and Twitter.

Next Steps to Implementation

1. *Establish a Code of Conduct:* To address patient privacy and confidentiality concerns, manufacturers should collaborate to define industry-wide standards for sharing patient data. These standards could be outlined in a unified "Code of Conduct".
2. *Demonstrate Clear Evidence:* For health-promoting social media to be taken seriously by more patients and providers, a robust clinical trial is needed to gather clear clinical benefit directly attributable to social media. Due to the inherent skepticism of some, the need for clear evidence is even more important. With regard to the safety-net population, social media is already used by many in the safety-net and they entail minimal to no upfront cost for the user. A targeted study for safety-net users would yield the needed evidence to promote widespread adoption for this patient population in particular.