Increasing Importance of Social Media in Healthcare

October 2011, Volume Eight

kpmg.com
Welcome to the October edition of Issues Monitor – Healthcare. Each edition pulls together and shares industry knowledge to help you quickly and easily get briefed on the issues that affect your sector.

In our continuing series of Issues Monitors for Healthcare, this issue examines growing usage of social media in healthcare business, types of models being followed by providers and information portals, and insights into what the future could hold for this trend.
Social media dials up patient power in healthcare

The large-scale use of technology has had a significant impact on the global healthcare sector. From new testing techniques to improved surgical equipment, technological advances have revolutionized the healthcare industry. Social media is one such tool that is rapidly transforming this segment. Social media platforms are fast becoming a cost-effective and easily accessible solution for both healthcare providers and online patients. While healthcare providers across Europe and the US are fast adopting social media technologies, many providers across the Asia Pacific region remain cautious and have been relatively slow to get on the social media bandwagon.

A patient’s voice, via social networking, sits at the heart of assessing patient outcomes, experience and quality of care. Few providers are ready for the role instant feedback from patients will play, and regulators will need to think about how to incorporate patient power in their regulatory regimes.
Social media in healthcare

Newer technologies such as the internet and social media websites have enabled healthcare providers to reach their patients in a virtual environment, thus revolutionizing the way patient care is being provided.

During its early years, the web served as a platform for read-only information that users retrieved passively. However, it has now transcended its role as an information provider, and is facilitating interactive two-way information sharing. Further, the rate of online networking among global users has been constantly increasing, which in turn has expanded the reach of businesses across all industries.¹

In the healthcare industry, face-to-face interaction has traditionally been the primary medium for information exchange. The entire communication process has always revolved around a real-time physical setting in which patients met with physicians. However, newer technologies such as the internet and social media websites have enabled healthcare providers to reach their patients in a virtual environment, revolutionizing the way patient care is being provided.

An increasing number of people now use the web to communicate and are more likely to use social media websites and portals to procure healthcare-related information. A May 2011 Pew Research Center’s Internet study showed that, of 3,001 US adults surveyed, approximately 80 percent of the internet users use online media for healthcare information. The same study also revealed that 15 percent of US adults use their cell phone to access healthcare information.² Across developing economies as well, using the internet to access healthcare information is fairly popular. An online survey conducted by Max Bupa Health Insurance in 2010 revealed that of 1,004 Indians surveyed, 39 percent use the internet for general healthcare information.³

Today, users are not only using the internet to search for information, but are increasingly using social media to interact with their physicians. Such interactions are helping patients shift from the regular in-person patient–doctor interaction to a virtual environment where e-doctors provide solutions at lower costs.

Technology has also facilitated the transformation of one-to-one communication into a one-to-many setup, in which a doctor reaches out to thousands of online users in seconds through tweets or blog posts. Interactive websites such as Hello Health and PatientsLikeMe enable users to easily connect with online doctors and patients to get instant information regarding various ailments.⁴
Table 1: Examples of online healthcare portals with different business models

<table>
<thead>
<tr>
<th>Portal</th>
<th>Year of introduction</th>
<th>Business model</th>
<th>Revenue model</th>
<th>Key differentiating factor</th>
</tr>
</thead>
</table>
| **Hello Health**<sup>5, 6, 7</sup><br>(US) | 2008 | • Facilitates online communication between patients and physicians  
• Provides the following practice solutions to healthcare providers:  
  - **New direct-pay practice:** Hello Health optimizes the workflow of its clients by managing their documentation and patient profiles online  
  - **Addition of new cash-pay services to the existing insurance-based practice:**  
    Through this, Hello Health allows its clients to add cash-pay services such as secure email and video visits to their existing insurance-based practice | • Earns revenue by providing different membership plans to patients and practice solutions to healthcare providers | Easy-to-use online communication portal |
| **Healthcare Magic**<sup>8, 9</sup><br>(India) | 2008 | • Helps patients find doctors by specialty in India, the UK and the US  
• Facilitates online communication between patients and doctors  
• Provides information on diseases and conditions | • Funded by sponsorships and advertisements  
• Sells different membership plans to patients for interaction with doctors | Provides personalized diet and fitness plan services |
| **Organizedwisdom**<sup>10, 11</sup><br>(US) | 2007 | • Provides healthcare information  
• Collects and provides information shared by healthcare experts to users | • Funded by advertisements and sponsorships | Free alerts are provided to users |
| **Sermo**<sup>12, 13</sup><br>(US) | 2006 | • Facilitates physician–physician collaboration  
• Provides healthcare information through dedicated blogs | • Generates revenue from healthcare institutions, government agencies and financial services firms that purchase its products to access the elite group of practitioners | Inter-doctor collaboration. Practicing physicians can join the portal for free |
<table>
<thead>
<tr>
<th>Portal</th>
<th>Year of introduction</th>
<th>Business model</th>
<th>Revenue model</th>
<th>Key differentiating factor</th>
</tr>
</thead>
</table>
| PatientLikeMe\(^{14, 15, 16}\) (US) | 2004 | - Facilitates patient–patient interaction  
- Provides healthcare information through research reports | - Sells patient experiences to companies that develop or sell medical products such as devices, equipment, drugs, medical services and insurance | Dedicated focus on patients looking for other patients with similar ailments |
| NHS Direct\(^{17, 18, 19}\) (UK) | 1998 | - Provides healthcare advice and information through telephone and online portal service to patients across the UK  
- Helps patients find different healthcare providers operating in their region | - Earns revenues by providing patient care activities. | Provides service application for iPhones and Android mobiles |
| RateMyMD\(^{20}\) (Canada) | NA  | - Allows users to rate their doctors, based upon their experiences | - Funded by advertisements and sponsorships | Provides ratings and feedback from user experience in terms of punctuality, knowledge, helpfulness and overall quality |

*Note: For further examples of healthcare portals with similar business models, please refer to Table 3 in the Appendix section.*

---

**Why social media in healthcare?**

With the increased accessibility of social media globally, it is now being used as a tool to foster serious discussion on healthcare issues. Apart from being an always-on support platform for patients in need of advice and treatment, social media also offers significant advantages to healthcare service providers.

**Benefits for provider organizations**

- **Reduced costs** – Social networking platforms offer huge cost benefits to healthcare providers, as the two-way online communication helps minimize the costs associated with paper, telephone calls and other overhead components. The Department of Veterans Affairs (VA), a US-based military veteran benefit system, implemented VistA, an online healthcare system that enables doctors to interact with each other on a regular basis. According to a 2010 report by Healthcare Performance Management (HPM) Institute, a US-based research and education organization, the online communication system helped VA reduce its per-patient healthcare costs by 30 percent.\(^{21}\)

- **Improved physician–physician collaboration** – Social media provides an ideal platform for healthcare professionals to share ideas, experiences and medical journal articles with each other. Websites such as Sermo and Ozmosis enable doctors to...
collaborate and share their favorite articles and research using social bookmarking functions, postings and voting tools. This helps ensure better patient outcomes, as doctors can conveniently build their knowledge in real time and facilitate faster adoption of best clinical practices.22

• **Wider reach with no geographic boundaries** – Social media has the capability to reach a large audience within a few seconds. In case of critical emergencies such as natural disasters and disease outbreaks, social media has proved to be an effective tool. During the devastating earthquake and tsunami that hit Japan in March 2011, Twitter acted as a lifesaver, as doctors could update chronically ill patients about various treatment locations. Also, during the 2009 H1N1 flu outbreak, the Centers for Disease Control and Prevention (CDC) used social media platforms to update users about the disease and its possible preventions. Its Facebook page was followed by over 50,000 users, and H1N1 videos on YouTube were viewed over 2.6 million times.23

• **Launch of new services** – Certain healthcare providers prefer using social media tools such as blogs to introduce new services. This helps the provider achieve better publicity than it can through a regular press release or other media channels. Users can easily comment and share their feedback on the new service. The Holy Cross Hospital in Florida has been regularly using social media to pass information on new therapeutic methods on its different therapeutic-specific blogs.24

• **Talent search** – As the healthcare industry requires specialized skills and expert knowledge, healthcare providers are moving beyond the traditional methods to search for workers with the required skill sets. Healthcare providers such as the Mayo Clinic and HCA Group both use Twitter to advertise
new openings in their hospitals. Healthcare professionals are visiting social media platforms and professional portals such as LinkedIn to look for new opportunities. In 2010, AMN Healthcare conducted a study of more than 1,200 healthcare professionals, including doctors, pharmacists, nurses and allied professionals across multiple disciplines. The study revealed that around 20 percent of the respondents have used at least one social media website for their job search. As information can be disseminated rapidly through social media, healthcare providers are likely to leverage this further in their talent search programs.25, 26

Benefits for online patients

- **Reduced costs** – Social media initiatives help patients get timely solutions to their problems at lower costs. Instead of paying huge amounts of money to visit a doctor, a patient can easily register with a healthcare portal and get on-demand healthcare services at a fraction of the cost of a physical visit. A regular online visit to a doctor in the US is estimated to cost around US$30 per visit, much less than the US$75–100 fee for an in-office visit.27 According to a US-based online healthcare service provider Teladoc, it provides 62 percent cost savings on visits to a regular primary care physician (PCP), 68 percent on visits to a specialist, 75 percent on visits to an urgent care unit and 95 percent on visits to an emergency room.28

- **Improved self monitoring** – Social media websites and healthcare portals such as WebMD provide a range of healthcare tools and applications that help the users to better understand their healthcare needs. WebMD tools like Fit-O-Meter, Food and Fitness Planner and Personal Diet Evaluator help the users conveniently monitor their daily healthcare and exercise requirements.29

- **Interaction with other patients to make informed choices** – Healthcare portals such as PatientsLikeMe and iMedix help patients with similar medical conditions to connect with each other, discuss their conditions and make informed choices regarding doctors and medical treatments. According to a June 2010 survey of 1,323 PatientsLikeMe members, 12 percent of patients changed their physicians as a result of interaction with other patients. The survey also highlighted that 22 percent of mood disorder patients required less in-patient care, subsequent to the regular interactions they had on the website.30

- **Readily available healthcare provider information** – Several social media websites and healthcare portals help patients looking for a hospital or a healthcare facility in a particular locality. Websites such as ZocDoc and WebMD allow users to select doctors as per their specifications, and also help in booking appointments.31, 32 At the same time, there are several other portals such as RateMyMD and DoctorScorecard that allow users to rate their doctors, based upon their experiences.33, 34
Adoption of social media across geographies

Due to its wider reach and easy accessibility, social media is also influencing the choice of healthcare providers for a large number of patients. In a recent survey by hospital market research firm YouGov Healthcare, 57 percent of users revealed that their social media connections with a hospital strongly affect their decision to use a particular facility for treatment.38

Further, for those patients who are not comfortable sharing their illness-related experiences during face-to-face meetings with doctors, social media is a convenient alternative platform.36

Social media provides a viable opportunity to build brand awareness and create long-term relations with patients for healthcare providers. There has been a steep rise in the number of US hospitals adopting social media, according to Ed Bennet social media statistics, the number of US hospitals using social media increased from 365 in September 2009 to 965 in May 2011. Figure 1 provides an overview of the growth in social media accounts by US hospitals.37, 38, 39

The number of US hospitals using social media increased from 365 in September 2009 to 965 in May 2011.
Hospitals in the UK and the US have been using social media technologies in a variety of innovative ways. As early as March 2009, physicians at the Henry Ford Healthcare System in Detroit used social media to educate medical students by answering the queries of more than 1,900 people on Twitter, during the brain surgery of a 47-year-old man. Rather than using social media for only specific instances, hospitals have now gradually started to use it more frequently and are including it in their day-to-day activities. Texas Health Resources, a 24-hospital health system in northern Texas, uses social media to frequently update its patients about healthcare and promotes use of electronic health records (EHRs) and other new technologies. Children’s Hospital Boston, a leading pediatric medical center, has a Facebook fan following of over 500,000 fans, uses social media websites to promote open discussions on healthcare topics and obtain regular donations. The Sarasota Memorial Health Care System in Florida also uses social media platforms such as Twitter to answer patient queries and provide customer service post diagnosis.

In addition to hospitals, public healthcare systems and regulatory bodies are leveraging social media technologies to effectively inform the general public about diseases, health tips, treatment options and healthcare services. The UK’s public healthcare system — the National Health Service (NHS) — uses Twitter and Facebook to promote healthy lifestyles and inform patients about prevailing diseases. On Twitter, the NHS operates several accounts with different focus areas. For example, @nhschoices, its primary account, focuses on healthy living issues and content. Its @nhschoicestalk account supports forums and blogs on the site, and its @nhsfeedback account highlights responses from NHS organizations and positive patient feedback. On Facebook, its healthy living page focuses on four primary objectives — losing weight, drinking less alcohol, quitting smoking and exercising more.

As of October 2011, the American Diabetes Association had over 117,000 people following its updates on Facebook, and the American Cancer Society page had more than 264,000 followers.

In Europe, an increasing number of hospitals in Belgium, Germany, the Netherlands, Sweden, the UK and other countries are beginning to integrate social media into their marketing functions. Figures 2 and 3 provide an overview of the increase in the use of social media by hospitals in the UK and Germany.
In emerging markets, healthcare organizations are not using social media as widely as those in the developed markets. However, there has been an increased interest in social media in these countries and its use is gradually increasing. In India, online healthcare portals that connect users with doctors are slowly gaining popularity. In May 2011, it was reported that Healthcaremagic.com, an Indian healthcare portal that provides online doctor services, was adding an average of 1,900 new users each day.47 In Indonesia, healthcare organizations such as AIMI-ASI (Indonesian Breastfeeding Mothers’ Association) have successfully integrated social media in their marketing strategy. They use different social media platforms for different purposes — Twitter for campaign and recruitment, Facebook for promotion and mailing lists for consultations.48 As more users start sharing their healthcare experiences online, social media websites and the internet are expected to emerge as an important resource for making critical healthcare decisions.

Healthcare providers undertaking significant initiatives
Ever-increasing competition, demand for high-quality care and the need for faster responses to patient queries are leading to an increasing number of healthcare providers and facilitators adopting social media platforms to build stronger relationships with their patients. As the lack of resources and the shortage of time often restrict doctors and hospitals from staying connected with their patients, social media helps them to quickly respond to patient requirements.

While a large number of healthcare providers are now considering the use of social media in their business strategy, leading providers have already joined the social media trend. Table 2 outlines some recent social media initiatives undertaken by various healthcare organizations.
While a number of hospitals and healthcare providers have been taking significant initiatives with regard to social media, there is still ample potential for the healthcare community to utilize this opportunity comprehensively. According to a May 2011 study published in Annals of Internal Medicine, only 21 percent of the 1,800 randomly selected hospitals from the American Hospital Association 2008 Annual Survey use social media.\(^5\) In addition, rapid advancement in technologies and the emergence of new tools within the social media space will also encourage the healthcare industry to leverage this platform to ensure best quality of care and strong industry growth.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Social media initiative</th>
<th>Targeted outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser Permanente</td>
<td>In September 2011, Kaiser Permanente Center for Total Health introduced an official blog to explore and discuss new topics and issues facing the healthcare sector.(^50)</td>
<td>The blog looks to position itself as an innovative learning destination, where users and various experts, bloggers, thought leaders, and the media can discuss different healthcare-related issues.</td>
</tr>
<tr>
<td></td>
<td>In March 2010, Kaiser Permanente implemented the Kaiser Permanente HealthConnect, an innovative health information system, in its 431 medical offices and 36 hospitals.(^51)</td>
<td>The system facilitates easy and instant interaction between Kaiser Permanente professionals and members.</td>
</tr>
<tr>
<td>Mayo Clinic</td>
<td>In July 2011, Mayo Clinic launched the Mayo Clinic online community, which shares content from various Mayo Clinic videos and blogs, and provides links to news articles about its research and treatment developments. The community has no registration charges and features a discussion forum where members can easily interact with each other.(^52)</td>
<td>The community is aimed at helping patients share their Mayo Clinic experiences and interact with other patients with similar medical ailments.</td>
</tr>
<tr>
<td></td>
<td>A social media center was established in June 2010 to provide training to other hospitals on the use of social media tools such as Facebook, Twitter and YouTube.(^53)</td>
<td>The center aims to hold conferences, deliver workshops and provide training and consulting services on how hospitals can leverage social media to create better relationships with patients, achieve business goals and provide vital information regarding their products.</td>
</tr>
<tr>
<td>The Ontario Health Coalition</td>
<td>The Ontario Health Coalition, a Canadian healthcare community, recently announced plans to identify the top healthcare issues in Ontario by using a democratic social media campaign. The social media campaign will take place in three phases between June and September 2011.(^54)</td>
<td>The campaign is aimed at reaching people across all classes through social media, to understand their healthcare issues and experiences.</td>
</tr>
<tr>
<td>Raritan Bay Medical Center</td>
<td>In December 2010, Raritan Bay Medical Center, New Jersey, performed a knee surgery. The details related to the surgery were posted in real time on Twitter and were used to tutor medical lab students of the New Jersey-based St. Joseph High School.(^55)</td>
<td>The activity was aimed at educating the medical students about the minute details related to the surgery.</td>
</tr>
<tr>
<td>Inova Health System</td>
<td>In September 2010, Inova Health System, a Virginia-based nonprofit healthcare system, sponsored ‘Fitfor50’ a 50-day interactive fitness program in association with former Washington Redskins star Darrell Green. The program incorporated user stories from Facebook and Twitter. It also featured video messages and blog entries from Green.(^56,57)</td>
<td>The innovative program was aimed at helping participants receive helpful healthcare and fitness tips from Inova physicians.</td>
</tr>
</tbody>
</table>
Challenges and risks associated with social media in healthcare

While social media can prove to be a boon for healthcare providers, it can also become a major threat to their reputation and credibility. A number of challenges are associated with the use of social media in healthcare, which can present significant roadblocks to its rapid adoption.

**Legal and liability concerns**

Interaction between healthcare providers and social media users may lead to various legal issues.

- **Patient privacy violations** – While communicating with a patient, healthcare providers risk violating the US Health Insurance Portability and Accountability Act (HIPAA), which limits healthcare providers from disclosing any health-related information of patients without their consent.58 Hospital employees can easily use social media websites to leak important hospital information or violate patient privacy rights. In April 2011, a physician at Westerly Hospital in Rhode Island was reprimanded and fined by the state medical board for posting patient information on Facebook.59 In a similar incident in June 2010, five nurses from Tri-City Medical Center in California, who were found to be discussing patient cases on Facebook, were discharged from their duties. 60

- **Fraud and abuse** – Healthcare providers paying money to third parties to promote their services on social media platforms may violate laws aimed at preventing fraud and abuse. In the US, laws such as the federal Medicare and the Medicaid Patient Protection Act of 1987 impose penalties on those healthcare providers that pay third parties to generate referrals, or exclude them from the Medicare and Medicaid programs.61, 62

- **Licensing violations** – Physicians and other healthcare providers risk violating regional licensing laws. A doctor providing online medical advice to a patient residing in another region might not be licensed to provide consultation in that region.63

**Lack of accuracy**

Misinformation about diseases and treatments is a major concern for patients using social media websites. In January 2011, the American Medical Informatics Association published a study on 10 different diabetes-related social networking sites. The study, conducted by researchers at the Children’s Hospital Boston Informatics Program, revealed that several of these websites had posted inaccurate information, and that they lacked user privacy.64

Due to the abundance of healthcare information on social media websites and portals, there is a high likelihood that the information will be inaccurate. According to a January 2011 study by Health Dialog, a London-based healthcare management company, only 25 percent of users of online health information verify the reliability of the source. Inaccurate information and non-verification of sources can be harmful to users, as they may consequently waste money, take risks with unnecessary tests and treatments, or dismiss serious symptoms that require immediate attention.65

**Budget constraints**

Despite the fact that several healthcare organizations and hospitals are adopting social media, budgeting for the use of such media, including hiring dedicated employees for the purpose, is relatively low. According to a study released by Greystone.net in January 2010, 70 percent of around 100 healthcare providers included in the study have only three or fewer employees monitoring their social media operations. As all the content on such sites must be strictly regulated and all the information frequently updated, healthcare providers need to dedicate sufficient budgets and manpower — even though they generally do not have such resources available.66

“By being aware of the potential issues that social media can cause, and putting a few simple safeguards in place, doctors and medical students can enjoy social media without it coming back to haunt them in the future.”

– Dr Michael Bonning, Chairman of Australian Medical Association Council for Doctors in Training (AMACDT)
Low availability of online doctors

Users who wish to interact with online doctors have to settle for limited options. Doctors’ lack of both time and knowledge of social media hinders any form of comprehensive collaboration of social media and healthcare. A 2009 social media survey conducted by Medimix International of 510 physicians across Europe, Mexico, Brazil and the US revealed that 66 percent of the physicians either do not use, or do not have information about social media networking websites.67

Although the various risks and challenges associated with social media may restrict healthcare providers in actively using these platforms, implementation of stringent policies and proper guidance can help healthcare providers in using social media more effectively. In November 2010, the Australian Medical Association Council of Doctors-in-Training (AMACDT) released guidance to help doctors and medical students maintain a high level of professionalism while using social media. Such guidance helps doctors not only better understand the potential threats of social media, but also overcome these threats, while maintaining their ethical standards. According to Dr Michael Bonning, Chairman of AMACDT, “By being aware of the potential issues that social media can cause, and putting a few simple safeguards in place, doctors and medical students can enjoy social media without it coming back to haunt them in the future.”68, 69

Healthcare will continue to embrace social media, with caution

The healthcare landscape has evolved — to Health 2.0, wherein patients have assumed the role of active participants and seek control of their own health.

In summary, over the past few years, the healthcare landscape has evolved — to Health 2.0, wherein patients have assumed the role of active participants and seek control of their own health. Individuals are now interacting on social media websites and healthcare portals, seeking to reduce the communication gap between patients and healthcare providers. This rapid transformation is making healthcare delivery more patient-centric, and empowering users to make informed decisions about their health. Further, as doctors begin dealing with more informed patients, the time spent on patient care and the related costs will likely decrease, leading to improved overall standards of care. Better self-management of one’s health could also help governments to control the growing healthcare costs and deal with the problem of staff shortages in the healthcare sector.

“It is impossible to ignore the effect that social media is having on the Internet in general, and on hospitals and health systems specifically. Organizations that have a formal plan to manage their social media interactions are more likely to be successful, and we expect more and more hospital Web departments to embrace this strategy moving forward.”70

– Mike Schneider, Executive VP, Greystone.net

Although some caution is necessary to deal with concomitant challenges posed by the use of social media in healthcare, a rational strategy adopted by healthcare organizations and regulatory agencies can help the industry to adequately respond to this important change in the healthcare landscape and fully leverage the opportunities offered by it.71, 72
### Table 3: Further examples of online healthcare portals and their business models

<table>
<thead>
<tr>
<th>Portal</th>
<th>Year of introduction</th>
<th>Business model</th>
<th>Revenue model</th>
<th>Key differentiating factor</th>
</tr>
</thead>
</table>
| Medeguide\(^{73, 74}\) (Thailand / Hong Kong) | 2009     | • Facilitates online communication between patients and doctors  
• Helps patients find and contact doctors by specialty and region, free of charge  
• Provides healthcare information on diseases and conditions | • Sells membership plans to doctors and hospitals that join Medeguide | Promotes medical tourism and helps patients find doctors abroad   |
| Ozmosis\(^{75, 76}\) (US)     | 2008     | • Facilitates real-time interaction with US-licensed physicians  
• Provides healthcare blog service | • Earns revenue by providing product solutions such as OzmosisESP | Inter-doctor collaboration. US physicians can join the portal for free |
| iMedix\(^{77, 78}\) (US / Israel) | 2007     | • Facilitates patient–patient interaction  
• Provides support group facility that allows users with similar medical ailments to easily interact with each other | • Connects healthcare, insurance and medical companies with consumers | Users can share their views offline and are provided with an inbox facility. Registration for members is free of charge |
<p>| ZocDoc(^{79}) (US)         | 2007     | • Helps users find doctors by specialty, region, hospital affiliation and insurance coverage | • Funded by sponsorships and advertisements | Provides service application for iPhones and Android mobiles |
| American Well(^{80}) (US)  | 2006     | • Facilitates instant interaction between patients and doctors | • Earns revenue by brokering interactions between patients and healthcare providers | Provides interactive online platform |
| Teladoc(^{81}) (US)       | 2002     | • Facilitates interaction between patients and doctors through online and telephonic consultations | • Earns revenue by connecting patients with doctors | Teladoc claims an average physician callback time of 22 minutes after an appointment request |</p>
<table>
<thead>
<tr>
<th>Portal</th>
<th>Year of introduction</th>
<th>Business model</th>
<th>Revenue model</th>
<th>Key differentiating factor</th>
</tr>
</thead>
</table>
| WebMD<sup>82, 83</sup> (US) | 1995                | • Provides comprehensive healthcare information through portals, blogs, newsletters and magazines  
                           • Helps users to find doctors by specialty, to suit their specific medical requirements | • Funded by sponsorships and advertisements               | Provides several healthcare tools including food-o-meter, fit-o-meter, Personal Diet Evaluator and BMI plus calculator |
| MedHelp<sup>84</sup> (US) | 1994                | • Facilitates patient–doctor and patient–patient interactions  
                           • Provides healthcare information on diverse topics | • Funded by sponsorships and advertisements               | Provides healthcare tracking tools and iPhone applications to users                          |
| myDr<sup>85</sup> (Australia) | NA                  | • Provides healthcare information on conditions, medicines and symptoms  
                           • Helps patients find doctors by specialty and region, free of charge | • Funded by sponsorships and advertisements               | Provides healthcare tools including target heart rate calculator, child energy calculator and alcohol calculator |
| Doctors.net.uk<sup>86, 87</sup> (UK) | NA                  | • Facilitates physician–physician collaboration  
                           • Provides regular news and research studies to its members | • Earns revenue by providing different product solutions to public and private organizations. These include:  
                           – Communication campaigns  
                           – Market research studies  
                           – Recruiting services | Provides innovative services to its members — email account, forum postings and podcasts |
| Doctor Fox<sup>88, 89</sup> (UK) | NA                  | • Provides consultations and issues private prescriptions online  
                           • Provides healthcare information on diseases and conditions | • Earns revenue by providing online consultations and medications at different prices           | Instant consultation and prescriptions are provided. Only available to UK residents.          |
| BootsWebMD<sup>90</sup> (UK) | NA                  | • Provides regular healthcare information on conditions, medicines and symptoms | • Funded by sponsorships and advertisements               | Features WebMD Symptoms Checker tool                                                          |
| DoctorScorecard<sup>91</sup> (US) | NA                  | • Allows users to rate their doctors, based upon their experiences | • Funded by donations and advertisements               | Provides free registration                                                                  |
Further Information

Visit kpmg.com for the following related publications

- Taking the Pulse: A Global Study of Mergers and Acquisitions in Healthcare
- The Future of Global Healthcare Delivery and Management

How KPMG firms can help

Supporting change
Working alongside clients, our firms’ professionals help to streamline processes, to enhance controls and to contain costs and business risks. We look at systems, supply chains, capital structures, contracts with third parties and intellectual property to see how they can best be utilized. We identify areas of weakness that might jeopardize achievement against objectives, as well as, advising on the development and execution of management systems to create sustainable business performance.

Developing business online
Our firms’ professionals help companies create new policies, procedures and processes, including internal controls, which are needed when setting up new business areas. We help our firms’ clients to use technology to drive growth, improve business performance and to safeguard operational integrity, security and continuity.

Key contacts

Mark Britnell
Chairman
KPMG’s Global Healthcare Practice
Tel. +44 207 694 2014
mark.britnell@kpmg.co.uk

Gerald Crowell
Global Head, Marketing and Communications, Healthcare
KPMG Global Resource Centre
Tel. +1 416 777 3926
gcrowell@kpmg.ca
## Companies Mentioned in this Issue

<table>
<thead>
<tr>
<th>Company</th>
<th>Page Numbers</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Well</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>AMN Healthcare</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Annals of Internal Medicine</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>BootsWebMD</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Centers for Disease Control and Prevention</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Children’s Hospital Boston</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Doctor Fox</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>DoctorScorecard</td>
<td>6, 13</td>
<td></td>
</tr>
<tr>
<td>Doctors.net.uk</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Facebook</td>
<td>5, 7, 8, 9, 10, 11</td>
<td></td>
</tr>
<tr>
<td>Greystone.net</td>
<td>11, 12</td>
<td></td>
</tr>
<tr>
<td>HCA Group</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Health Dialog</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Healthcare Magic</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Healthcare Performance Management Institute</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Hello Health</td>
<td>2, 3</td>
<td></td>
</tr>
<tr>
<td>Henry Ford Healthcare System</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>iMedix</td>
<td>6, 14</td>
<td></td>
</tr>
<tr>
<td>Indonesian Breastfeeding Mothers’ Association</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Inova Health System</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Kaiser Permanente</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>LinkedIn</td>
<td>6, 7, 8</td>
<td></td>
</tr>
<tr>
<td>Max Bupa Health Insurance</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Mayo Clinic</td>
<td>6, 10</td>
<td></td>
</tr>
<tr>
<td>Medeguide</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>MedHelp</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Medimix International</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>myDr</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>NHS Direct</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Organizedwisdom</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Ozmosis</td>
<td>4, 14</td>
<td></td>
</tr>
<tr>
<td>PatientsLikeMe</td>
<td>2, 6</td>
<td></td>
</tr>
<tr>
<td>Pew Research Center</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Raritan Bay Medical Center</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>RateMyMD</td>
<td>4, 6</td>
<td></td>
</tr>
<tr>
<td>Sermo</td>
<td>3, 4</td>
<td></td>
</tr>
<tr>
<td>Teladoc</td>
<td>6, 14</td>
<td></td>
</tr>
<tr>
<td>Texas Health Resources</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>The American Cancer Society</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>The American Diabetes Association</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>The American Hospital Association</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>The American Medical Informatics Association</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>The Australian Medical Association Council of Doctors-in-Training</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>The Children’s Hospital Boston Informatics Program</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>The Department of Veterans Affairs</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>The Holy Cross Hospital</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>The National Health Service</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>The Ontario Health Coalition</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>The Sarasota Memorial Health Care</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Tri-City Medical Center</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Twitter</td>
<td>5, 6, 7, 8, 9, 10</td>
<td></td>
</tr>
<tr>
<td>WebMD</td>
<td>6, 13, 14</td>
<td></td>
</tr>
<tr>
<td>Westerly Hospital</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>YouGov Healthcare</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>YouTube</td>
<td>5, 7, 8, 10</td>
<td></td>
</tr>
<tr>
<td>ZocDoc</td>
<td>6, 14</td>
<td></td>
</tr>
</tbody>
</table>
Sources

1. **Health 2.0: How Social Media are Transforming Healthcare**, Chanet.org, March 2010
4. **Take Two Aspirin And Tweet Me In The Morning: How Twitter, Facebook, And Other Social Media Are Reshaping Health Care**, Health Affairs, March/April 2009
5. **Website homepage**, Hello Health, accessed on September 27, 2011
6. **How To Use Hello Health**, Hello Health, accessed on September 27, 2011
7. **Take Two Aspirin And Tweet Me In The Morning: How Twitter, Facebook, And Other Social Media Are Reshaping Health Care**, Health Affairs, March/April 2009
12. **Website homepage**, Sermo, accessed on September 27, 2011
13. **See what makes Sermo unique**, Sermo, accessed on September 27, 2011
14. **Website homepage**, Patientslikeme, accessed on September 27, 2011
15. **About PatientsLikeMe**, Patientslikeme, accessed on September 27, 2011
16. **FAQ webpage**, Patientslikeme, accessed on September 27, 2011
17. **Website homepage**, NHS Direct, accessed on September 27, 2011
18. **What is NHS Direct?**, NHS Direct, accessed on September 27, 2011
20. **Website homepage**, RateMyMD, accessed on September 27, 2011
21. **Healthcare Performance Management in the Era of “Twitter”**, HPM Institute, October 2010
22. **Doctors Use Social Media to Collaborate Online**, Ozmosis.com, accessed on September 27, 2011
23. **H1N1 Web and Social Media Metrics**, CDC.gov, January 31, 2010
27. **MEDICINE; CLICK HERE TO CO-PAY**, Los Angeles Times, June 7, 2010
28. **How we save your money**, Teladoc, accessed on September 27, 2011
29. **Healthy Eating & Diet**, WebMD, accessed on September 27, 2011
Sources

30 Healthcare Performance Management in the Era of “Twitter”, HPM Institute, October 2010
31 Website homepage, Zocdoc, accessed on September 27, 2011
32 Website homepage, WebMD, accessed on September 27, 2011
33 Website homepage, RateMyMD, accessed on September 27, 2011
34 Website homepage, DoctorScorecard, accessed on September 27, 2011
35 Patients pick hospitals for their social media presence, Fierce Healthcare, June 29, 2011
36 Healthcare Listens To Social Media, InformationWeek, November 20, 2010
37 Hospital Social Network List, ebennett.org, May 8, 2011
38 Hospital Social Network Data & Charts, ebennett.org, September 21, 2009
39 Hospital Social Network Data & Charts, ebennett.org, October 19, 2010
40 Opinion: The Twitter Revolution inside our hospitals, The Tech, February 18, 2011
41 Texas Health Taps Social Media To Promote EHR, InformationWeek, November 1, 2010
42 Childrens Hospital of Boston: A Successful Hospital Social Media Example, Ignite Social Media, March 23, 2011
43 The General Use of Social Media By Healthcare Organizations, The innovation cell, June 21, 2011
44 How NHS Choices makes healthy use of Twitter and Facebook, April 21, 2011
45 Community webpage, Facebook.com, accessed on October 1, 2011
46 European Hospitals, ebennett.org, 2010
48 Social media in civil society— citizens in @ction, The Jakarta Post, April 30, 2011
50 Kaiser Permanente Invites Conversations about Health with New Blog, Kaiser Permanente, September 14, 2011
51 Kaiser Permanente Completes Electronic Health Record Implementation, Kaiser Permanente, March 3, 2010
52 Mayo Clinic launches social network to connect global Mayo Clinic community, Mayo Clinic, July 5, 2011
53 Mayo Clinic looks to train other hospitals in social-media use, Medicity news, July 27, 2010
54 Health Coalition Launches www.votehealthontario.ca: Social Media Campaign to Identify Key Health Care Issues in Provincial Election, Globeadvisor, June 7, 2011
55 Follow Live Surgery on RBMC’s Twitter Account December 17, Raritan Bay Medical Center, December 17, 2011
56 Inova Health System, Darrell Green Partner to Encourage People to Get Fitter, Stronger, Inova.org, August 15, 2010
57 Social media in healthcare: Who is going beyond the basics?, Medicity News, January 3, 2011
58 Understand the Rules for a HIPAA-Compliant Social Media Strategy, Hive Strategies, February 15, 2011
59 For doctors, social media a tricky case, Boston Globe, April 20, 2011
Sources

60 5 Issues Affecting Hospital Employment, Becker's Hospital Review, December 14, 2010
61 § 1320a–7b. Criminal penalties for acts involving Federal health care programs, Cornell University Law School, accessed on September 27, 2011
62 Social Media Can Create Legal Issues for Health Care Providers Says Ike Willett, Baker & Daniels, July 2, 2011
63 Social Media Can Create Legal Issues for Health Care Providers Says Ike Willett, Baker & Daniels, July 2, 2011
64 Healthcare Social Media Sites Neglect Privacy Protections, Information week, February 14, 2011
65 Know Your Source: Online Health Information Can Empower or Mislead, Healthdialog, January 11, 2011
66 Greystone.Net Reveals Results of Research on Use of Social Media by Hospitals/Health Systems, Greystone.net, January 18, 2010
67 Want to Talk to a Physician? Use Facebook!, pr-inside.com, July 13, 2009
68 Social Media and the Medical Profession, AMA, November 30, 2010
69 Get connected, stay respected, AMA, November 30, 2010
70 Greystone.Net Reveals Results of Research on Use of Social Media by Hospitals/Health Systems, Greystone.net, January 18, 2010
71 Health 2.0 It's up to you, Council for Public Health and Health Care, February 2010
72 Transforming Healthcare Through Social Media, Wipro Healthcare Services, 2010
73 Website homepage, Medeguide, accessed on September 27, 2011
74 Health, Fitness and Drugs : Top International Hospitals Join Medeguide, Skynewswire, May 19, 2009
75 Website homepage, Ozmosis, accessed on September 27, 2011
76 What is Ozmosis?, Ozmosis, accessed on September 27, 2011
77 Website homepage, iMedix, accessed on September 27, 2011
78 Company overview, iMedix, accessed on September 27, 2011
79 Website homepage, ZocDoc, accessed on September 27, 2011
80 Website homepage, Americanwell, accessed on September 27, 2011
81 Website homepage, Teladoc, accessed on September 27, 2011
82 Website homepage, Webmd, accessed on September 27, 2011
83 WebMD Corporation - Forming the Corporation in 1995, eNotes, accessed on September 27, 2011
84 Website homepage, Medhelp.org, accessed on September 27, 2011
85 Website homepage, Mydr, accessed on September 27, 2011
86 Website homepage, Doctors.net.uk, accessed on September 27, 2011
87 About US webpage, Doctors.net.uk, accessed on September 27, 2011
88 Website homepage, Doctorfox, accessed on September 27, 2011
89 About Us, Doctorfox, accessed on September 27, 2011
90 Website homepage, BootsWebMD, accessed on September 27, 2011
91 Website homepage, DoctorScorecard, accessed on September 27, 2011