Healthcare white paper

Social Media in Healthcare

Why hospitals, health systems, and practices need to take a proactive approach—now.



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For healthcare providers already navigating big changes, social media presents yet another challenge—and opportunity. While some health organizations are social pioneers, many are just beginning to address the need for a comprehensive social media policy and strategy.

Healthcare providers of all sizes need to act now to mitigate risks and put the power of social networks to work to increase revenue, cut costs, and enhance the quality of patient care. By building on the experience, expertise, and services of others, they can accelerate the process of becoming a social enterprise.

Why social media—why now?

Social networks have become an integral part of healthcare. Hospitals have Facebook pages. Physicians tweet with relevant medical updates. Patients consider the comments of strangers when making medical decisions.

Social media offers hope for better health outcomes by enabling fast, broad dissemination of medical information. Social networks provide non-official channels for disease reporting. They provide timely access to large amounts of data that can help track and even predict the course of illness through a population. They educate hard-to-reach populations. They enable patients around the world to find and connect others with the same disorder or disease to share both practical advice and emotional support.

At the same time, social media raises particular questions and concerns for healthcare providers. There is the potential for harm that can come from inaccurate or misleading medical information. There are threats to patient privacy and institution and caregiver reputations. Whole sites—RateMDs.com, Healthgrades.com, Vitals.com, and others—are dedicated to patient reviews of physicians and hospitals.

There is growing recognition among healthcare providers that social media plays an inevitable and a critical role, at a minimum, in maintaining good public relations. Nevertheless, given the other challenges that healthcare faces today to cut costs and improve care—such as the transition to interoperable electronic healthcare records (EHR), and other significant changes—why take on the task of devising and implementing a comprehensive social media strategy as well? The short answer is that social media plays an important role in all of the above.

Outreach, education, and research

A growing number of hospitals use Facebook and blogs to inform the public about conditions, treatments, news, and events.

The Mayo Clinic has pioneered the application of social media to promote health, fight disease, and improve healthcare, with its Center for Social Media. Today the clinic has 450,000+ followers on Twitter, 300,000+ connections on Facebook, and one of the most popular medical channels on YouTube. It also offers a free app on iTunes to connect with others in the Mayo Clinic online community with similar health interests.

Kaiser Permanente helps the public to find reputable sources of healthcare information and support with links to online communities in nearly 50 categories. The non-profit, integrated health system selects websites based on their reputations, privacy/security policies, and how active they are in discussion threads. It makes no endorsement, however and cautions users to "follow your best judgment when using their services." 1

The public can learn a great deal about a wide range of conditions and treatments by viewing 3D medical animations posted in the Nucleus Animation Library (NAL). The animations, produced by medical writers, editors and animators, are reviewed by physician experts for accuracy. Currently, they depict more than 150 common diseases, procedures, and tests. Recently, the Cleveland Clinic posted its own detailed animations, as well as interviews with the surgical team, to educate the media and public about the first facial transplant.



https://healthy.kaiserpermanente.org/health/
poc?uri=center:online-communities
http://www.nucleusanimationlibrary.com
http://www.clevelandclinic.org/lp/face_
transplant/



"The ability to reach out and quickly create a community willing to help you validate or invalidate your ideas is very powerful. Anyone can ask for help from people around the world."

Kent Bottles, MDChief Medical Officer, PYA Analytics

Recruiting for clinical studies

Social media is also helping to reduce the time and expense of gathering data and recruiting people for clinical research. In addition to broad reach and easy enrollment, social media can provide access to detailed information so volunteers know what to expect.

Patients with rare conditions are using social media as a way to try to initiate, find sponsors for, and conduct and coordinate research. PatientsLikeMe.com, which connects patients with both rare and prevalent diseases, has built a global clinical trials tool with more than 36,000 trials, which patients can search, based on condition, gender, age and location.

One inspiring social media-enabled patient research effort began in 2004, when a few women with spontaneous coronary artery dissection (SCAD), a rare heart disease primarily affecting young women, connected and self-organized online to study the disease. Eventually 400 people with the disease from around the world were sharing data and presenting themselves as study subjects. This enabled them to enlist the help of researchers at the Mayo Clinic. And today, in addition to conducting multiple studies, the clinic has created a virtual multicenter registry, and is maintaining a DNA biobank of samples from SCAD patients and family members.

A rich source of data

Social media platforms also incidentally generate huge amounts of data that can be analyzed to help improve health.

In 2008, for example, Google.org, unveiled Flu Trends, a site that scans millions of Google searches from around the world to track flu activity. According to a study published in the journal *Nature* in February 2009, the search data detected outbreaks nearly two weeks before they showed up in the official CDC reports.⁶ Web data mining, while a complement, not a substitute for epidemiological surveillance, will play a growing role in disease tracking and other health research.

Dr. Kent Bottles, MD, Chief Medical Officer of PYA Analytics, a practicing pathologist, healthcare industry consultant, and Senior Fellow at the Thomas Jefferson University School of Population Health⁷ recently used social media "crowd sourcing" to help prepare for a keynote presentation on patient advocacy groups and social media.

Bottles and others envision a greater use of social media to gather data from large populations. Data can be used to track epidemics, more quickly understand side effects of drugs or devices, study connections between behaviors, moods, and physiological states, and much more. "There's a tremendous amount of data being generated that can be analyzed—and more that could be collected from home devices that monitor physical states like heartbeat, glucose, and blood pressure," he says. In a recent post on Hospitalimpact.org, Bottles lays out the case for why major hospitals and researchers should begin to develop data analytics programs.⁸

⁴http://www.inspire.com/static/inspire/reports/inspire-scad-ladies-stand-up.pdf

http://www.mayoclinic.org/news2012-rst/6990. html "Mayo Clinic Begins to Unravel Rare Heart Condition that Strikes Young, Healthy Women" July 16, 2012

⁶http://www.nature.com/nature/journal/v457/ n7232/fig_tab/nature07634_T1.html "Detecting influenza epidemics using search engine query data" Nature 457, 1012-1014 February 19, 2009

⁷http://www.kentbottles.com

⁸http://www.hospitalimpact.org/index. php/2013/03/26/a_paradigm_shift_in_ healthcare_leveragin



"Social media gives those of us in the healthcare field a way to connect and have a voice. It is tremendously important as we deal with healthcare reform that doctors be heard and that decisions are not left up to politicians and policy makers."

Kevin Pho, MD
 Internal Medicine Physician,
 Founder of KevinMD.com

9http://participatorymedicine.org/

A new patient-caregiver relationship

As patients increasingly turn toward Facebook, Twitter, and other social media to access healthcare information and learn more about institutions, caregivers, and treatments, the patient-caregiver relationship changes.

The dynamic shifts, from a one-to-one and one-way communication of diagnosis and directives to a conversation. Patients talk to each other—and they talk back. Medical professionals are viewed less as decision-makers and more as expert partners—as one of many sources informing a patient's decisions, rather than the only one.

The "engaged patient," empowered by social media, is seen by many as a powerful factor in improving health and reducing costs. The Society for Participatory Medicine, for example, was formed to promote the active participation of patients in their care. The not-for-profit organization connects "e-Patients"—empowered, engaged, educated, electronically networked—to each other and encourages them to move from being "mere passengers" to becoming "responsible drivers of their own health." In addition to providing news and information through its e-Patient.net blog, the society publishes its own peer-reviewed Journal of Participatory Medicine. Other patient-centered social networks, such as PatientsLikeMe, CureTogether, and 23andMe have published in existing medical journals, validating the contributions that social media can make to medicine. 10

The voice of the physician

While some physicians may lament a loss of "authority" and many rightly fear the harm that can come from misinformation broadcast through social media, most welcome more engaged patients and more collaborative relationships as a way to improve compliance and outcomes.

Early social media adopter Dr. Kevin Pho, MD, Internal Medicine Physician, Founder of KevinMD.com, says he began his KevinMD blog in 2004 for two reasons: 1) To address misleading, wrong, and commercially driven health advice in social media. 2) To provide a platform for doctors to connect with peers and discuss issues. Today the kevinmd.com site hosts contributions from hundreds of physicians who discuss specific health issues and guide people to accurate information and reputable health sites.

Meaningful Use—Stage 2

Another factor driving social media in healthcare is Stage 2 of Meaningful Use, which goes into effect in 2014. Stage 2 takes the metrics for earning federal incentives under the Affordable Care Act another step in the direction of rewards for quality of care, not quantity of services delivered.

Under Meaningful Use Stage 1, which went into effect in October 2012, the CMS Hospital Inpatient Value-Based Purchasing program is expected to distribute some \$850 million in 2013 based on measures that include patient feedback collected via the HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) Patients' Perspectives of Care Survey.

With Stage 2, physicians and hospitals will be required to provide at least 50 percent of their patients with secure, electronic access to their health information (up from 10 percent in Stage 1) and thereby enabling more patients to take a more active role in the coordination of their care. Even more significantly, at least 5 percent of patients must have actually logged in to access their record electronically, a goal that requires changing patient behavior—and one that many providers will engage social media to try to achieve.

¹⁰ A PatientsLikeMe study, titled "Perceived Benefits of Sharing Health Data Between People With Epilepsy on an Online Platform," was published in the journal Epilepsy and Behavior. A 23andMe study, titled "Efficient Replication of Over 180 Genetic Associations With Self-Reported Medical Data," was published in PLoS One, as well as the Journal of Medical Internet Research. http://www. ihealthbeat.org/perspectives/2012/a-look-atsocial-media-in-health-care-two-years-later. aspx#ixzz2Q5BirWHQ



"Healthcare is a slow adopter of new technology," says Dr. Bottles, who has also served as a technology consultant to hospitals. "In one sense it's easy to understand why healthcare is especially cautious and conservative—changes can mean mistakes—and mistakes in healthcare can harm or even kill someone."

Kent Bottles, MD
 Chief Medical Officer, PYA Analytics

Risks of doing nothing

For all the positive benefits of social media, mitigating risk is perhaps the most compelling reason for healthcare organizations of all sizes to develop and implement a "social enterprise" strategy now, rather than later.

Procrastination or "ignoring" social media brings its own risks, including:

- **Risk to patients** Hospitals and other providers can help to reduce the potential for harm from misleading or wrong health information transmitted through social media by providing reliable information and/or educating patients and helping to guide them to reputable sites.
- Risks to reputation By not monitoring social networks, providers are less likely to be aware of threats to their reputation in the virtual public sphere. Without an established social media presence, they are in a weak position to counter with relevant facts. In addition, patients increasingly look at which providers share information and are more transparent about their performance. Consumer Reports, which has emerged as a trusted source on hospital performance advises patients to "look for hospital ratings that include safety and error rates. If hospitals don't report such information, patients should consider going elsewhere." ¹¹
- Liability / HIPAA Without explicit social media policies, training, and governance, hospitals and other providers risk liability and violation of the Health Insurance Portability and Accountability Act (HIPAA). Staff posting inappropriate information about patients—or doctors commenting on public forums—can be seen to compromise patient privacy or with offering medical advice—present serious liability and regulatory issues. Doctors and nurses have been fired for their poor judgment in posting comments or images where patients could be identified and their privacy was compromised.

Obstacles to social media in healthcare

Lack of time, expertise, and resources are the biggest obstacles that keep healthcare providers from taking a proactive and comprehensive approach to developing and implementing a "social enterprise" strategy that mitigates risk and helps them achieve revenue, cost, and care objectives.

Many hospitals are extremely resource-limited and already overwhelmed by deadline, regulatory, and internally driven changes in the way they deliver care. Unlike conventional marketing and PR campaigns, social engagement is a 2-way, always-on, near real-time effort. Success requires constant monitoring, prompt response, frequently refreshed content, and influencer engagement.

To take full advantage of social media, healthcare organizations must be prepared to:

- Monitor Constantly scan postings, major social networks, and digital channels engines to be aware
 of responses and any buzz/conversation about the institution and/or specific topics of interest.
 Analyze data to interpret sentiments, identify influencers, spot trends, and uncover links to
 desired and undesired perceptions and behaviors.
- Engage Take action and use understanding to change perception/behaviors through engagement and other social media activity. Bring learning and "social intelligence" back into the organization, so the appropriate groups can use insights and develop new best practices for customer care/contact center, staff education, operations, web optimization, and so on.
- **Govern** Develop and enforce a formal social enterprise strategy and policy—and proactively evolve it over time in light of new experience and learning.

http://www.consumerreports.org/cro/2012/10/ how-we-rate-hospitals/index.htm



Beyond general limitations of time, money, and resources to perform these tasks, specific challenges include:

- Analytics Social media presents major challenges to traditional data analysts and technologies. First, the data captured from social networks is huge, requiring powerful "big data" crunching engines for timely results. Second, social data is "unstructured"—as opposed to the structured data found in pre-defined fields in conventional databases. Finally, the goal of analysis is typically not fact based, but rather to interpret the positive or negative attitude of participants. So-called "sentiment analysis" tools and techniques are only just emerging to mine the emotion and opinion in user-generated content.
- Privacy/security To be able to electronically engage patients, whether to meet Meaningful
 Use Stage 2 requirements or meet patient requests for more convenient care and
 collaboration, healthcare organizations will have to be able to provide secured patient portals
 for bi-directional electronic data access and communications and take other measures to
 protect the privacy, confidentiality, and security of EHR and other patient information.
- Operationalization Insight is only valuable if used—and the value of social intelligence is especially perishable. Healthcare organizations need an efficient way to route intelligence gained on preferences, complaints, and behaviors to proper groups inside the organization in order to take the appropriate action, whether in the contact center, to website design, hospital policies, etc.
- Managing change Social media is still new—and all aspects of it continue to evolve rapidly. Social sites and the volume of data in social networks are both growing at an exponential rate. Ethical, legal, and "good manner" norms are also still evolving as regulators and the public at large try to determine what's acceptable.

Moving forward

Despite the challenges and obstacles, hospitals and other healthcare providers can take immediate steps to reduce risk and move forward with social media.

Become a social enterprise inside and out

Healthcare organizations can begin by engaging stakeholders across the organization and at all levels to define social media objectives. Internal social sites and online surveys can be used to get broad input, without slowing down the process. Discussions about the ideal patient experience, current institutional strengths and future plans, and how employees want their institution to be perceived can help drive consensus and provide the basis for a compelling, yet realistic vision.

With a broad strategy in place, organizations will need to make more practical decisions about who will manage the social program and what kind of resources, skills, technologies, training, and governance are needed to meet both long-term and day-to-day tasks.

Build on the experience of others

Providers need not "reinvent the wheel," but can build on and learn from the experience of others. For starters, they should look at how others are using social media, such as Facebook and Twitter.

The Mayo Clinic offers membership in a Social Media Health Network for health-related organizations interested in applying social media tools. The clinic has also published a book to help map out strategies: The Book on Health Care Social Media.

The American College of Physician Executives (ACPE),¹² American Medical Association (AMA),¹³ and Federation of State Medical Boards (FSMB)¹⁴ all offer help with social media policies and guidelines for physicians. The National Council of State Boards of Nursing (NCSBN)¹⁵ and National Student Nurses' Association (NSNA)¹⁶ offer recommendations for nurses. Some healthcare organizations share their social media policies online through the Social Media Governance website.¹⁷

It may also make sense for a healthcare organization to leverage outside services and expertise, rather than take clinicians away from patients or invest in internal capabilities not aligned with their healthcare mission.

 ¹² http://net.acpe.org/Resources/
 Brochures/Institutes/
 Summer/2012/2012SummerBrochure.pdf
 13 http://www.ama-assn.org/ama/pub/news/

news/social-media-policy.page

14 http://www.fcmb.org/pdf/pub.social.modia

¹⁴ http://www.fsmb.org/pdf/pub-social-mediaguidelines.pdf

https://www.ncsbn.org/Social_Media.pdf
 http://www.nsna.org/Portals/0/Skins/NSNA/pdf/NSNA_Social_Media_Recommendations.pdf

¹⁷ http://socialmediagovernance.com/policies. php?f=4

Figure 1. Step-by-step approach

Expand social enterprise strategy in three steps:



Start small—and build on experience

Healthcare organizations can start small and take a step-by-step approach, building on the experience and insight gained to refine and expand their social enterprise strategy.

Step 1. Reduce risk

A good first step is to make sure clear policies are in place to reduce risk and that employees receive the proper quidance and education about participating in social sites.

News stories from around the world report on doctors and nurses who have been fired for revealing confidential patient info, posting unauthorized images, making negative comments about their hospital or offering unauthorized medical advice online. All employees need to draw a clear line between expressing their personal opinion and their role as a spokesperson for an institution or practice. In general, caregivers should consider separate personal and professional social media accounts, keeping the personal private and using the other one as an extension of their professional practice.

Institutions should be clear about who is authorized to contribute as a spokesperson and in what social media. Authorized contributors, such as bloggers, need to be educated not just about HIPAA, but about copyright law, conflict of interest, and restrictions on endorsement and medical advice.

As healthcare professionals consider whether, what, and how to communicate on social media, they should remember that online communities are "public spaces." The same rules that apply to conversations in a crowded hospital elevator apply here. Once something is posted to a social media platform, it's in the public sphere—and it's forever.

That said, organizations should also keep in mind that not so long ago, few physicians would give a patient their cell phone number or agree to communicate with patients via email. As one person commented on a news story about nurses fired for posting patient images: "If no patient names, photos, or identifying information were included with comments/x-rays, then why/how is that different than a conference or seminar in which the speaker uses patient examples to make or explain a point?" It's a valid question that can help guide the development of policy that leverages social media for the right reasons—while protecting patient privacy and institutional integrity.

Step 2. Establish (refresh) social media presence

For many hospitals, a Facebook page is a good way to establish a social media presence with comments on and links to interviews, before and after stories, news and events, and YouTube videos. The biggest challenge most will face is in maintaining a regular presence and posting updates, whether Facebook, Twitter, or professional association sites. Social communities expect prompt responses to their comments and tweets.

Step 3. Take action

Listening is not enough. Healthcare organizations need to get smart about how to best engage and influence social conversations and be efficient in feeding social insight and information back into the organization. Data also needs to be collected, analyzed, and reported to inform the ongoing refinement and evolution of the social enterprise strategy.

¹⁸ http://scrubsmag.com/five-nurses-fired-forfacebook-postings/

Figure 2. HP Social Media Solutions

HP offers a comprehensive array of solutions targeting social media.



Accelerating the social healthcare enterprise

As a leader in healthcare, social media, data analytics, and customer care services, HP can help healthcare providers develop and implement the right social media strategy quickly and effectively—adapt strategies and tactics as social programs evolve.

Monitoring, understanding, and engaging

Providers can rely on HP Social Media Analysts to monitor and mine social media daily and to help interpret what people are saying about an institution, as well as any other topics of interest. Analysts use HP high-performance, real-time analytic capabilities to analyze social content and traffic. With technologies including the HP Social Intelligence Solution and HP Live Customer Intelligence (LCI) analytical tool developed in HP Labs, and HP Vertica and HP Autonomy Healthcare (HC) Technology tools, HP analysts are able to mine and analyze vast quantities of both structured and unstructured data across multiple channels for meaning and sentiment, as well as to detect trends, regional preferences, and more.

Putting social intelligence to work

HP Engagement Management Services help healthcare organizations integrate patient engagement opportunities and social intelligence back into the organization so that the appropriate internal groups can take the appropriate action. Reporting can include daily snapshots, weekly summaries, and monthly reports based on custom metrics to enable both immediate response and ongoing refinement of strategy.

HP also offers inbound and outbound multi-channel contact center services, for prompt action in response to social media trends and findings. Currently, for example, HP provides contact center services for 22 of 35 Medicaid outsourcing states to support both Medicaid providers and recipients.

End-to-end healthcare solutions

As a trusted supplier of information technology solutions to hospitals, clinics, and medical practices around the world, HP has the experience, technologies and partners to help meet a wide range of healthcare challenges and requirements. The HP portfolio spans computers, printers, scanners, storage, and networks, as well as specialized healthcare equipment—from medical carts to clinical displays. Sleek, reliable HP ElitePad tablet and HP EliteBook notebooks help protect patient privacy and other sensitive data with built-in encryption and other security features—while giving caregivers easy, on-the-go access to EHR and other information where and when they need it for better care coordination.

Start today

Social media plays a growing role in healthcare as consumers increasingly turn to online communities for medical advice—and federal healthcare policy and regulations reward patient e-engagement as a way to reduce healthcare costs and improve outcomes. According to a recent survey conducted by the Health Research Institute (HRI) at PwC,¹⁹ four in ten consumers say they have used social media to find health-related consumer reviews of treatments or physicians; one in three have sought information related to other patients' experiences with their disease; and one in four have posted about their health experience. Health organizations can no longer afford to ignore social networking and should start today to take advantage of new and emerging opportunities.

19 http://pewinternet.org/Commentary/2011/ November/Pew-Internet-Health.aspx Learn more at hp.com/go/healthcare

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