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Shifting the balance of power to healthcare consumers

It's late Spring 2008, and political wunderkind Barack Obama has clinched the Democratic presidential nomination. While a number of factors have contributed to the win over Hilary Clinton — from charisma to dogged campaigning — it's likely Web 2.0 has played a part. Through the information-sharing made possible on sites such as Facebook and YouTube, Obama has reached out to fans, enabling them to not only watch his speeches and donate to his campaign, but also plan the next canvassing drive, organize a media boycott, and even swap frequent-flyer points to allow fellow campaigners to travel to the next primary.

This same kind of virtual activism is beginning to emerge in the healthcare sphere. Patients equipped with technology and motivated by necessity are using the Web 2.0 to gain greater control over their health.

It's a consumer-centric approach to healthcare that contrasts starkly with the system of decades past — a system that could be referred to as Healthcare 1.0. Healthcare 1.0 focused more on managing health episodes — specific illnesses and conditions — than it did the long-term well-being of patients themselves. Governance was maintained at the acute-care level, and healthcare IT was provided through siloed, hospital-centric settings: Hospital information systems (HIS), admit, discharge, transfer (ADT) systems, basic scheduling and billing, and picture archiving and communication systems (PACS) were all designed to track results related to the episodes being treated inside the hospital walls.

Meanwhile, in sectors such as automotive manufacturing and financial services, there emerged high-speed, corporate networks — seamless communication systems that stretched around the globe and created single, powerful channels of workflow and procurement connecting silos, customers, suppliers and competitors.

Healthcare sought this same level of connectivity. The baby boomers were aging. Patient loads were expanding. Services were becoming more dispersed, with many patients receiving care outside their GP's office — while, ironically, their personal health records remained locked within it.

To address these conflicting challenges, the Canadian government in 2001 created Canada Health Infoway. One of Infoway's primary objectives was to create an interoperable electronic health record (iEHR) — a lifelong record for every Canadian, accessible by all providers at all key points of care.

Now, in 2008, the iEHR is no longer a goal; it is a reality. There are now iEHR projects underway in almost every jurisdiction in Canada.

This widespread iEHR integration has marked the evolution from the siloed, hospital-based Healthcare 1.0 to Healthcare 1.5, whereby services and communication extend beyond a single facility and governance is regionally- or provincially-based.

In today's Healthcare 1.5 environment, up-to-the-minute information is being made available on current diseases and effective treatments. Province-wide registries are being used to monitor patient wait-times for surgery. Private labs are being connected to public health programs, and rural hospitals to urban teaching facilities. Pan-Canadian standards are now in place governing the electronic exchange of all healthcare information.

Another trait of Healthcare 1.5 is the increasing adoption by physicians of ASP-based electronic medical records (EMRs). The ASP — application service provider — is a delivery model that enables physicians to access a fully-functional and -managed EMR via a secure Internet channel. It is a model that brings with it an inherent connectivity compared with stand-alone EMRs that function within a specific office or clinic but don't readily connect to external systems. Advocates of the ASP point to the improved integration it offers and the Internet-based, anytime-anywhere access to patient information.

And therein lies the crux of the next healthcare frontier, Healthcare 2.0: Its key driver is the availability of patient information and, more specifically, accessibility to patients themselves. Consider once again the collaborative qualities of Web 2.0. One of Web 2.0's defining attributes is 'the user rules'. To clarify, think online communities instead of websites; blogs instead of home pages; information-sharing rather than delivery.

Now put it all in an iEHR context and the result is Healthcare 2.0. This is a system in which care settings are fully integrated: Not only do providers have complete profiles of individual patients; they also have the big picture on population health. Information is exchanged almost effortlessly. Many services are delivered through telemonitoring and telehealth. Internet-based programs for preventative care and chronic disease management are well in place. Decision-support systems use live, real-time patient data. Physicians are connected via ASP-based EMRs.

And at the centre of it all is the patient, and his or her individual health record (IHR). More consumer-friendly than the EHR, the IHR uses existing data sources and information channels — hospital web portals, for example — to provide patients with Internet access to everything from personal health profiles and treatment information to physician contacts and online prescription-ordering.

The IHR is the key to healthcare reform — and the consumer push behind it is apparent through websites such as My Public Health Record, Microsoft HealthVault and Google Health.

While this push is regarded nervously by some of the gatekeepers of the healthcare system, the increasing momentum of the movement would tend to indicate its inevitability. Moreover, while we are beginning to see great strides made through information-based medicine and through innovations in areas such as genomics and regenerative medicine, it is becoming evident that the healthcare system can't transform itself. If any significant change is to be made, consumers must play a part.

Research shows that 60 percent of Canadians have expressed a strong desire to take a more active role in managing their own healthcare. One need only look at some recent statistics to see the impact that this fundamental shift in responsibility could have. Chronic disease consumes more than 75 percent of healthcare costs. Approximately 80 percent of coronary-disease cases, up to 90 percent of type 2 diabetes and more than half of all cancers could be prevented through lifestyle changes — the kinds of changes made by information-enabled consumers.

As it stands now, in Ontario, as an example, healthcare will account for 50 percent of government spending by 2011, two-thirds of the budget by 2017, and 100 percent of it by 2026.

Faced with figures such as these, the move to Healthcare 2.0 only makes sense. And where concerns exist over adequate system control and 'handing over the keys to the vault', perhaps we need to think of Healthcare 2.0 not in terms of handing over the keys, but as a welcome opportunity to make another set. Put another way, it might be time to change our paradigm from 'gatekeeper' to 'cooperative' — a healthcare system we all support, and which looks after us in return.

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