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It used to be that meaningful use meant using something meaningfully. However, to any health care or health IT professional, certainly in the US if not globally, the phrase has now become inexorably wedded to the implementation of EMRs and their “meaningful use” to deliver health care services.

It is the US government that can be thanked for this as the Health Information Technology for Economic and Clinical Health (HITECH) Act passed in 2009 provides incentives and disincentives to physicians and health care institutions based on whether certain standards for “meaningful use” of EMRs have been met.

These standards have been rolled out in phases with the initial phase focusing on digitizing paper-based practices, capturing health information in a set format and making health information available electronically to a certain percentage of patients in a practice. Later phases of meaningful use deal with compensation for offering more advanced clinical processes such as e-prescribing and transmitting patient care summaries electronically across multiple settings.

“Meaningful use” seeped through the porous border with the US years ago and many Canadian policy-makers and clinicians commonly use this term in reference to EMR adoption in this country. But this is inaccurate. While you as a Canadian physician are certainly being strongly encouraged to adopt the EMR in your practice, there is currently no specific system that pays you to use that EMR in certain ways.

What “meaningful use” really represents is a form of pay-for-performance to encourage physicians and institutions in the US to make use of EMRs in increasingly sophisticated ways.

Whether pay-for-performance is a viable approach to encouraging us as physicians to make better use of new technologies — and specifically EMRs — to enhance patient safety and improve patient care and outcomes, merits some debate.

Certainly new “maturity” models developed by groups such as OntarioMD and adopted by COACH, Canada’s Health Informatics Association, provide a template for increasingly sophisticated use of EMRs by clinicians. But the type of payment reform required to adjust the system of remuneration for physicians in the provinces and territories to match these maturity models has both upsides and downsides.

So far, Saskatchewan is the only jurisdiction to have taken baby steps in the direction of pay-for-performance for EMR adoption by paying a nominal sum to physicians in that province each time they use the EMR to perform certain clinical tasks.

With major funding programs for EMRs in Canada having moved beyond the stage of making lump sum payments to put computers on the desks (see story page 4), it is time for a full discussion in Canada of the various approaches that can be taken to maximize your use of an EMR, and the tradeoffs associated with each of these approaches.

But for the sake of clarity and helping ensure words mean what they were intended to mean, please don’t call it “meaningful use” ... unless you mean it.

NOT ONLY HAS THE ADVENT OF ELECTRONIC MEDICAL RECORDS (EMRs) and e-health spawned an often incomprehensible world of new acronyms — SNOMED, anyone — but it has also co-opted innocent phrases.

What “meaningful use” really represents is a form of pay-for-performance to encourage physicians and institutions in the US to make use of EMRs in increasingly sophisticated ways.
Concerted effort needed to advance health IT agenda

Having read the article on the CMA meeting in the November 2013 of Future Practice, it was gratifying to see that there are some physicians that are willing to stand up and ask for some functionality in EMRs. The sad bit is that all of the things that were requested have already been worked into specifications developed by HL7 working groups and also various ISO standards. Virtually no physicians know this and no organization seems interested in helping to inform physicians. Being ignorant of what has already been developed, physicians will typically start with only their personal uninformed opinions. These may be right on track but they keep starting from zero and are not taking advantage of the decades of work that has been done by clinician experts in this field.

Organizations like the CFPC (The College of Family Physicians of Canada), CMA and (Canada Health) Infoway have not been interested in providing financial support for physicians to get involved in a meaningful way. I have participated in the past with ISO working groups but now I am precluded from any participation since I do not have time to review and vote on the torrent of documents that are outside of my scope of expertise. Infoway has the Standards Collaborative Working Groups (SCWGs) but there is very little clinician involvement. The peer to peer groups are typically interested individuals but there is no depth of knowledge. The vendors are reacting to the lowest common denominator and marginalize any users who are outspoken in what they are asking for with regard to EMR functionality.

There are things that could be extremely helpful for physicians to have in EMRs but there is little effort to get these good things in place. I do not think that the CMA passing a couple of resolutions is going to make things happen. There needs to be a concerted effort by some group to get things to happen.

— Dr. Raymond Simkus

The need for quality data: A modest proposal

A Modest Proposal by Dr. Affleck in the March issue of Future Practice was eloquently written. He clearly describes issues around quality of care and the need for good data. He also mentions that for various reasons physicians have a “lingering sense that a preoccupation with data is interfering with patient care.” I think that this hits the nail on the head for why physicians are willing to record things in a quick-and-dirty manner that is not fit for any type of analysis. The Canadian Institute for Health Information (CIHI) tried and found that the amount of work to clean up the data was untenable.

The sad part is that solutions have been at hand for years but finding support for getting things fixed has been fruitless. The handful of physicians in Canada who understand these solutions are being ignored in favour of those who do not understand or don’t want to do anything.

Here in British Columbia, we have the Physicians Data Collaborative, a physician-run organization that is building a distributed querying system that would support the goals that Dr. Affleck describes. The physician community in Prince George has had the advantage of AMCARE (Aggregated Metrics for Clinical Analysis Research and Evaluation) which has been doing exactly what Dr. Affleck describes for quite a few years already. Physicians are not allowed to participate until they have passed some data quality checks.

High-level assertions have been available for decades. What we need now is to agree on concrete specifications so that implementers can produce the applications that we have all been waiting for.

— Dr. Ray Simkus is a family doctor in Langley, BC, and long-standing commentator on EMR-related issues in Canada

Novia Scotia developing information infrastructure

Dr. Affleck, I enjoyed your thoughtful article in Future Practice. Quality data is central to achieving quality care, and the public realizes that poor information leads to impoverished health services.

In Nova Scotia, Dianne Kelderman, CEO of the Nova Scotia Co-operative Council and her group have invested several million dollars in a project that aims to support physicians and the public as they try to get appropriate information to support health services and patient care. One purpose of the project is to help patients become active participants in their own care by giving patients access to their own health information, including laboratory reports. Another is to develop an infrastructure for predictive modelling that will enable patients, doctors and administrators to learn about the consequences of tests and treatment.

As you know, patients in California (e.g., Kaiser Permanente) and British Columbia and elsewhere have had access to their own information. Kaiser is using well-established techniques to learn which interventions help, which are more likely to harm, and which are a waste of everyone’s time and money.

The barrier in Nova Scotia to high quality data and care is seemingly related to the behaviour of the Department of Health and acquisience of physicians (led by DoctorsNS) to the odd rules imposed by our Department of Health that impair the ability of groups like the Co-operative Council to develop and implement appropriate information infrastructures and solutions to improve health services.

— Dr. David Zitner
Family physician and professor of medicine, Dalhousie School of Medicine
SEISMIC SHIFTS continue for major EMR funding programs

Pat Rich

IN THE EVOLUTION OF THE USE OF electronic medical records (EMRs) by physicians in Canada, March 31, 2014, was a pivotal date.

That’s when the three biggest — and oldest — programs established to give financial support to physicians implementing EMRs in Alberta, British Columbia and Ontario ceased to be or radically shifted direction.

Canada Health Infoway, which has helped channel hundreds of millions of dollars into supporting the e-health agenda nationwide, remains without stated budgetary support from the federal government. Furthermore, it was announced early this year that Richard Alvarez, Infoway’s president and CEO, will be stepping down next year after a decade of guiding the organization.

Despite huge changes in the Physician Office System Program (POSP) in Alberta, the Physician Information Technology Office (PITO) in British Columbia and OntarioMD in Ontario, information on what this means has not been made openly available to those not directly impacted.

For instance, in Alberta, under the terms of a 2013 agreement, the Alberta Medical Association (AMA), the provincial government and regional health authorities have been working on a strategic plan that will spell out how EMR support will be addressed in future.

That all has not been smooth sailing in those negotiations was made clear in a resolution passed by the AMA representative forum in mid-March stating: “[T]he AMA express(es) concerns regarding the draft EMR strategy and the deficiencies between Alberta Health’s most recent response and what has been proposed to the AMA by the Minister of Health.”

Later the same month, AMA President Dr. Allan Garbutt noted in a letter to members that the association has made arrangements to provide “an interim, limited EMR support service to provide much needed advice, guidance and resources …”

“We are also exploring other ways in which the AMA might be able to provide longer-term support,” he wrote, and because of “budgetary implications” this may involve a “member-pay cost-recovery model.”

He added: “… we believe that support for physicians and EMRs needs to be integrated, sustainable (and) provided through the AMA.”
Official news on the future of the PITO program is even more sketchy, with a spokesperson stating in early March that “a formal announcement will be forthcoming.”

However, it is known that what remains of PITO is being brought under the umbrella of the Practice Support Program (PSP) which is a function of the General Practice Service Committee (GPSC). The GPSC is a joint committee of Doctors of BC and the provincial government focused on primary care renewal.

While some BC physicians will still receive funding for activities initiated prior to March 31, PITO is no longer involved in EMR implementation, transition or direct physician funding. However, the program will continue to work on post-implementation support and practice improvement.

As for Ontario, a banner on the OntarioMD website home page recently stated: “Starting April 1, 2014, new funding to adopt an EMR is limited to 760 community-based family physicians and specialists.” This represents a program extension that will run for one year.

It was also announced that Brian Forster, CEO of OntarioMD for the past nine years, will be retiring next March. In acknowledging the move, Dr. Rick Tytus, chair of the OntarioMD Board of Directors, stated: “OntarioMD continues to thrive and looks forward to the challenges and opportunities of its portfolio. We will provide you more information regarding the transition and the search process as the year progresses.”

At Infoway, media relations director Dan Strasbourg says in an email that it’s “business as usual … There are still projects under active management and this will continue for several years,” when asked about the future of the organization.

“We appreciate that while the federal government recognizes and supports the work that we do, the current economic climate and competing budget priorities restricted them from allocating funds this year. It should also be noted that historically, Infoway has never received funding allocations on an annual basis.”

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Patients willing to email, videoconference with specialists

Pat Rich

RECENT SURVEY RESULTS INDICATE THERE’S CONSIDERABLE DISPARITY between the number of patients with chronic disease in Canada who wish to use email and video to communicate with their physicians and the number currently accessing these technologies.

The findings are based on results of a 2012 Statistics Canada computer-assisted telephone survey of 1,849 adults living in Western Canada who had at least one chronic condition.

The study was conducted by Dr. Arash Ehteshami Afshar, from the Department of Medicine, University of Alberta, and colleagues from the Interdisciplinary Chronic Disease Collaboration predominately based in Alberta, with the report published in the open-access online journal CMAJ Open.

In the survey, respondents were asked about their capacity to use mobile, video and online technology and their willingness to use email, text messages or videoconferencing to communicate with a specialist physician.

About two-thirds of respondents said they were interested in using email to interact with a specialist (66.3%, 95% CI 63.0%–69.5%) but were less enthusiastic about texting (44.9%, 95% CI 41.2%–48.7%). The attraction of videoconferencing was strongest among those who lived furthest from specialist care, with 50% of respondents in remote areas saying they would be interested in this technology if it saved at least one hour’s travel time.

Despite this high degree of interest, the survey revealed fewer than 1% of respondents reported having used either email, texting or videoconferencing to access health care in the past year.

In their analysis, the researchers noted that fewer than 30% of respondents identified a preference for face-to-face care as a major barrier to emailing with their physician, and few cited cost as a barrier to using text messaging. Privacy was not identified as a major barrier to using these technologies, including video.

The researchers concluded “these findings suggest that email and videoconferencing should be further explored as potential mechanisms for helping Canadians manage chronic diseases such as hypertension, diabetes and vascular disease.”

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FOR CANADIANS PHYSICIANS interested in health information technology (HIT) the Healthcare Information and Management Systems Society conference (HIMSS14) in Orlando was an excellent opportunity to compare how well we are doing, relative to the United States, in achieving enhanced use of electronic medical records (EMRs) and interoperability. Are we moving to good, then great, or just lost in the weeds?

For a newbie, the HIMSS experience is truly intimidating. The event is the pinnacle of the HIT industry, the nirvana of analytics, the mecca of the electronic health record (EHR).

Imagine an exhibitor hall larger than three football fields, which takes more than 30 minutes to cross if you don’t stop, with over 1,200 exhibitor booths — some as large and complex as a suburban home. Fill this with 39,800 attendees and keynote speakers like Hillary Rodham Clinton, and you can appreciate the awe we felt as we first walked through the doors of the Orange County Convention Center.

HIMSS is an event so large there are even educational sessions explaining how to navigate the educational sessions! It seems that “supersized” is the norm in America — but is bigger always better? Is it even possible to find trends in an event of this magnitude?

Our perspective was that of a pair of HIMSS first-timers: one a resident with an interest in global health and the transformative power of information technology, the other a practicing doc seeking an analytics platform that could serve the needs of Ontario and its 11,000 EMR users on 13 different systems.

Probably the best place to start is with the event’s grandiose themes: Innovation. Impact. Outcomes. Onward.

Innovation
You had to be a bit of a sleuth to find the “innovation” at HIMSS, way at the end of the conference centre and squeezed into a back corner. While this section — dedicated to HIT startups and first-year exhibitor booths — was actually fairly substantial, innovators and their nascent projects (with four feet of booth space) had a hard time competing with the multi-storey kiosks of IBM Watson, Epic and Microsoft.

Nonetheless, you could feel the enthusiasm and energy and suspected you might be glimpsing the future of HIT, with developers exhibiting wearable devices, real time health metrics and streamed data tools that improve communication, the patient experience, medication adherence, and dole out customized advice. Even though it is well known that more than 75% of startups will fail, those that succeed will be at the forefront of the next generation of HIT.

In many jurisdictions in Canada we still consider EMRs innovative, as they allow us to record, amass and conduct customized searches on our patient population. But it is clear that EMRs are no longer disruptive technology in the US; they’re considered the standard of care. This era has been ushered in by the movement toward accountable care organizations, beacon communities and the adoption of meaningful use payments and Obamacare — which is expanding health care coverage to more than millions of previously uninsured Americans.

As a result, when speaking to vendors about analytics, having full access to the stream of EMR data is considered a given. All of this leads to the logical follow up of implementation: demonstrating impact.

Impact
How does one produce meaningful impact through the adoption of EMRs, HIT systems, health information exchanges (HIEs) and a disparate multi-payer market? It’s clear that this year’s HIMSS experience was focused on doing this through enterprise analytics that go well beyond classic business intelligence...
tools. Most educational sessions focused on how groups have been accomplishing significant change through measurement.

Every vendor seemed to claim that they had solved the problem of interconnectivity, had full knowledge of the patient population served (with analysis of aggregated data produced by large integrated systems) and had fully embraced the concept of “big data.”

Through the US legislation known as the HITECH Act, offering $27 billion in incentive payments to provider groups that can show advancing levels of meaningful use with their EMR systems has led to a proliferation of opportunities for software providers who can navigate through more than 600 EMR providers.

When talking to representatives of these solutions, the challenge was trying to decipher which groups have functioning systems behind their fancy facades, as opposed to conceptual “vapour ware” where everything is a bit too perfect. One was left thinking that if the puzzle is really so easy to solve, we’d all be completely connected and interoperable by now. New models of care and payment structures are creating an unprecedented market for data parsing, measurement and reporting. Now that such data exists in care groups, it can show where funding can be best directed.

Indeed, measurement is allowing an element of pay-for-performance competition that permits comparisons across disease states, analysis of complexity and quality improvement in the domains being measured. While data quality previously limited the ability to apply measurement effectively, the incorporation of incentives for ICD-10 coding, as well as changes in technology like neural natural language processing, are making this less of an obstacle.

Outcomes

‘Outcomes’ has been a significant conference focus over the past three years, but obtaining useful and actionable big data is now an expected reality for large HMOs and health systems.

The difference in measurement goals between the US and Canada was striking at HIMSS. Canadian jurisdictions are interested in mining data from EMRs for the immediate purpose of changing outcomes and improving clinical quality.

...
Health IT at foundation of US health care reform

Pat Rich
ELECTRONIC MEDICAL RECORDS AND ADVANCES TO HEALTH CARE

Information technology (IT) hold the key to reforming the health care system in the United States and making it truly patient-centred.

That was a central theme at this year’s annual meeting of the Healthcare Information and Management Systems Society (HIMSS) in Orlando, Fla., where some 36,000 delegates gathered for the world’s largest health IT conference.

“What a fabulous time it is to be working in health IT,” said HIMSS board chair Scott MacLean in opening remarks, echoing the words of many before him who have opened this particular event.

While the potential and promise of health IT has always been front and centre at HIMSS conferences, the message was never more pronounced than this year — delivered by such prominent individuals as Hillary Rodham Clinton, former first lady, senator and secretary of state, Dr. Robert Wah, incoming American Medical Association (AMA) president, and Dr. Karen DeSalvo, the National Coordinator for Health Information Technology.

Clinton’s address was certainly the conference high point for those delegates who lined up for more than three hours to hear her address in person.

“We know that IT is helping to increase efficiency, save money and improve quality of care,” Clinton stated.

“I’m also pleased that because of … money from the federal government … this information technology revolution across our country (makes it) possible (that) no matter where you lived or what your problems were, you would be cared for because those caring for you would have access to your medical history. That is the power of EHRs (electronic health records).”

The reference to money from the US federal government is linked to the 2009 HITECH legislation, which is pouring $30 billion into encouraging physicians and health care institutions to adopt EMRs by providing incentive Medicare payments. The legislation mandating “meaningful use” of EMRs was a hot topic at HIMSS — as it has been since the legislation was implemented.

The second stage of “meaningful use” is scheduled to start Oct. 1, and much of the discussion at HIMSS focused on whether the deadline would be extended to help providers and institutions not yet able to meet these more rigorous requirements.

In her keynote address, DeSalvo said the deadline would not be extended but that deferment would be considered for those unable to meet the deadline for good reasons.

Wah, the AMA president-elect, addressed a physician-focused symposium prior to the conference about the US developing a data-driven quality health care system.

He described the current state as “a collection of stuff” and said the process to build a new system is “messy and dusty and has a whole lot of issues.”

Health IT was a foundational element in the creation of the new system, Wah said, noting he believed IT could “transform” health care by providing better information for health care providers to make better decisions. He predicted Health IT is about to enter an era where it supports both population health and clinical decision-making.

Electronic records will become a data source forming an important layer — above the EHR — that will take data from multiple sources and provide analytics to help run the health care system and provide care at the population level. What this means for individual physicians and other providers remains to be seen, Wah said, but he stressed physicians must remain part of the decision-making equation.

The new system will allow the movement of vast quantities of patient data much more quickly, he said, and patients continue to be very concerned about the security of their health information. Wah emphasized that reassuring them about this security will be an important enabler to ensuring accurate information is entered into the system.

He added the current street value of health information in the US is 15–20 times that of credit card information, and predicted an “arms race” between those trying to protect patient data and those trying to steal it.
Doing CPOE right: a Canadian hospital experience

Pat Rich

SUCCESSFUL IMPLEMENTATION OF COMPUTERIZED PHYSICIAN ORDER entry (CPOE) with evidence-based order sets in hospital can result in significant improvements in clinical outcomes, according to the experience of one major Toronto-area hospital.

Dr. Jeremy Theal, chief medical information officer and a gastroenterologist at North York General Hospital, described the factors behind successfully bringing computerized clinical decision support and advanced electronic medical record systems to his hospital in a presentation at the HIMSS annual meeting. Theal also presented results of a recent clinical study documenting and validating the approach.

He explained that North York General, a community teaching hospital with more than 400 beds, embarked on its e-health initiative in 2007 to address concerns about patient safety and improving in-patient care. In 2011, he noted, North York was the second hospital in Canada to reach HIMSS Analytics EMR adoption Stage 6, an advanced category of IT implementation in a hospital setting.

An important part of the process, Theal said, was to change the culture so that hospital physicians would adopt evidence-based care. “We wanted to make it easy for people to embrace evidence and use it in the course of their day.”

Use of standardized order sets was an important part of the system that North York wanted to put in place, Theal said. This was facilitated by evaluating inpatient discharge data for 12 months to determine the most common conditions treated. This identified a need for the development of 350 order sets, he said.

These core sets were developed using existing local hospital order sets and information, as well as Canadian and international guidelines, peer-reviewed articles and information provided by the vendor. Importantly, Theal noted, the order sets were validated by 80 physicians and 150 clinical staff at the hospital to encourage process buy-in.

The order sets were then tested to see how they would fit the existing clinical workflow, and care was taken to build them in. “The idea of putting a new solution onto an old broken process could have spelled disaster. We looked at this (change) as a key opportunity to integrate evidence into new workflows that would better fit the new system that was being implemented,” said Theal.

The roles and responsibilities of physicians at the hospital were evaluated to see how these roles would change in the new system and how hospital processes would change. Physicians were given different clinical scenarios — such as admitting a patient with a suspected hip fracture — and asked to walk through the process. This helped identify snafus that could then be addressed and retested before the system went live.

System planners paid close attention to how clinical decision support alerts were activated to encourage physicians to use them, Theal said.

In tandem with the technological changes, the hospital launched a campaign identifying clinicians as “superheroes” in using CPOE to improve what they were doing and documenting evidence for making the changes. He said this helped deal with the fear clinicians had; these were probably the biggest changes they had encountered since graduating from medical school.
Clinical support tool is integration key

INTEGRATING CLINICAL DECISION SUPPORT TOOLS into electronic medical records (EMRs) is critical for ensuring their successful use.

That’s the conclusion made by Dr. Karl Kochendorfer, chief health information officer and associate professor of clinical family medicine at the University of Illinois Hospital & Health Sciences System, in an address discussing the use of clinical decision support and knowledge management.

Kochendorfer, who also owns a company that links web-based resources with the EMR, noted that physicians often don’t get timely answers to the clinical questions they pose. This can be for a number of reasons, including difficulty in using the tools that can supply the answers.

He said linking clinical decision support such as clinical summaries to the EMR can significantly improve the ability to access needed information in a timely fashion and improve physician satisfaction.

The key to improving patient care through use of clinical decision support, Kochendorfer states, involves embedding the tools into the clinical workflow, automating the process, providing tools at the point-of-care during the clinical encounter and training so that people know how to use the tools.

One year after implementation, Theal noted that adoption by clinicians was 100%, even though use of the system was not mandatory. Ninety-two percent of physician orders were entered by physicians. Of 1.7 million orders, 830,000 were entered through order sets, and nearly half of the orders placed (49%) were made using evidence-based order sets.

Other improvements documented:
- medication turnaround time improved by 83%
- venous thrombotic embolism (VTE) prophylaxis rates increased from 50% to 96% using clinical alerts
- medication reconciliation increased from 7–9% to 80%
- order set usage increased from 36% to more than 97%

Theal said the hospital also conducted a retrospective chart review and statistical analysis to assess whether implementation of CPOE with evidence-based order sets was associated with a reduction in mortality of patients diagnosed with either pneumonia or COPD. A survey had shown North York General to be the second-best hospital in Canada for reducing the number of preventable in-hospital deaths, so they wanted to see if this could be attributed to the e-health innovations.

Mortality rates were seen to have decreased by 45% using the new systems, after adjusting for all associated variables, but no difference was seen in the 30-day readmission rate. If order sets matched diagnosis at time of admission, the improved mortality rate was 56%.

Among the key success factors identified by Theal for the changes made at North York General were:
- commitment from all levels of the organization
- cultural readiness to make the changes
- an effective communication plan to “win the hearts and minds of clinicians” and persuade them that the aim is to help patients
- understanding that different clinical groups have different adoption characteristics
- having frontline clinicians champion the change and take ownership of the process
- customizing the systems to meet the hospital’s needs
- continuously measuring, learning and making improvements

That’s the conclusion made by Dr. Karl Kochendorfer, chief health information officer and associate professor of clinical family medicine at the University of Illinois Hospital & Health Sciences System, in an address discussing the use of clinical decision support and knowledge management.

Kochendorfer, who also owns a company that links web-based resources with the EMR, noted that physicians often don’t get timely answers to the clinical questions they pose. This can be for a number of reasons, including difficulty in using the tools that can supply the answers.

He said linking clinical decision support such as clinical summaries to the EMR can significantly improve the ability to access needed information in a timely fashion and improve physician satisfaction.

The key to improving patient care through use of clinical decision support, Kochendorfer states, involves embedding the tools into the clinical workflow, automating the process, providing tools at the point-of-care during the clinical encounter and training so that people know how to use the tools.
A new poll of mobile use by health care providers and institutions in the United States shows adoption of this technology for providing health care is still in its infancy but expanding.

Results of the 3rd annual Healthcare Information and Management Systems Society (HIMSS) survey of mobile use showed clinicians are most likely to use mobile devices to look up patient information or to search for clinical information unrelated to specific patients. Only a third of clinicians indicated they used mobile devices to collect patient data at the bedside.

For the second year, the survey findings indicated pharmacy management — medication reconciliation and reminders — was top of providers’ lists as the use of mobile technologies most likely to impact patient care.

Findings came from 170 health care providers and health information technology executives.

Respondents said the top benefit to having access within their health facilities to mobile technologies was increased access to patient information and the ability to view data from a remote location.

More than half of those polled indicated they planned on expanding their use of mobile apps, and one-third of respondents said they currently offer apps for patient or consumer use — up 13% from a year ago. Among those suggesting apps to patients, the main indications were for chronic disease management, fitness or weight loss monitoring, and to provide access to a patient portal.

Data from mobile devices remain poorly integrated with other electronic systems, with 22% of respondents indicating that most of the data captured on mobile devices is integrated into an institutional electronic medical record. However, most respondents said they can access data from clinical systems through mobile devices, usually through Internet access using a VPN.

Just over half the survey respondents said they already have a mobile use policy in place in their institution, with another 29% indicating a policy is being developed. For those institutions that have a policy in place, privacy and security top the areas of concern with the policies covering lost or stolen devices and securing data on devices.
Canada once again has a secure, online social network just for physicians. Officially launched by Nova Scotia-based entrepreneur Blair Ryan and co-founders in February after months of testing, the site is reported to have more than 1,200 registered physicians who are using it to share and discuss clinical issues.

It’s the first attempt to develop a purely Canadian online social network exclusively for physicians since the Canadian Medical Association’s social network — Asklepios — was discontinued in 2012.

“Now is the time,” said Ryan in an interview, referring to why The Rounds seems to be much more successful in generating physician interaction than Asklepios was.

In an email inviting physicians to participate, Dr. Michael Clory, chief of the emergency department, Cobequid Community Health Centre, Lower Sackville, NS, who serves as chief medical officer to the site, noted that those who register can securely message and share photos using any web-enabled device. They can also collaborate on patient cases with physicians across specialties and provinces and access free CME courses and industry news.

Clory wrote that the network’s number one commitment to users is that only verified Canadian physicians can access the site. The funding model is sponsorship-based, and allows pharmaceutical companies or other organizations to host areas on the website where input is invited on a volunteer basis. An online article published by Entrevestor.com (which hosts blog posts on Atlantic Canadian startups) notes that nine different revenue models were considered before settling on this paid-access approach.

Ross Simmonds, marketing director of The Rounds, referred to these sponsors as “engagement partners” and talked about helping these partners to connect with Canadian doctors.

Venture capital and support from nine individual investors — including Canadian physicians — was used to establish the network, said Ryan. The Rounds also recently completed a $1 million seed capital fundraising effort. There are currently 10 staff members involved with the website, and a medical advisory group of four physicians.

Ryan noted personal verification of every physician who registers to the site is fundamental to the network’s operation, as is restricting the online discussions to physician access only. Comments are moderated by the physician registrants themselves, who use their real names on the site.

Prior to launching The Rounds, Ryan co-founded — and continues to run — The Empathy Factory, a not-for-profit organization that teaches children empathy and is devoted to social change. He said many physicians were interviewed before the network was established; they expressed a need for better collaboration tools for the profession in Canada.

Analysis of initial registrants to the site maps well with the demographics of the Canadian physician population in general, stated Ryan, with the highest proportion of users in Ontario. Some 65% of registrants are male. The site had 1250 registered users by the beginning of May and through partnerships with other associations is on track to have 6500 by June 1, said Simmonds. “It’s definitely exciting times for us,” Simmonds acknowledged.

Ryan said The Rounds has succeeded in offering the platform to other medical associations in Canada that want to use it. “It all comes down to trying to connect these physicians to all of the information they might need during the day, whether it’s with a patient right now or whether they are doing some research, as well as with the experts that they need to collaborate with.”

Medical students are not presently eligible to register for the site, but Ryan said his team is investigating how they can be more involved because there’s potential for them to gain so much from it. The aim is to allow students to participate to a limited degree, without compromising the physician-only areas of the site.

The Rounds is also active on other social media platforms, with a Twitter feed and an associated blog.
Facebook for family health teams: benefits, barriers and lessons learned

Emily Nicholas

Can Facebook provide the platform for an online community of practice to help an academic family health team (AFHT) such as the one at St. Michael’s Hospital, Toronto, do its work better?

Six months after launch the answer is a qualified “yes.” The St. Michael’s experience has provided many insights into the challenges of having health care providers use a freely available social networking site to interact.

The St. Michael’s team comprises more than 60 physicians, as well as pharmacists, physiotherapists, social workers and others who offer a comprehensive set of services designed to meet the needs of patients in an inner-city setting.

With clinics spread out across four — soon to be five — geographically distinct locations, team members aren’t always aware of certain specialized services available at other sites, such as diabetes education and outpatient palliative care.

Dr. Aisha Lofters, a physician in the AFHT, began to consider this issue after she heard that there was minimal use of the addiction counselling services. “I realized I didn’t even know we had addictions counsellors, and that I had patients who would benefit from that service.”
It was Lofters, along with her colleague from another of the family health clinics, Dr. Fok-Han Leung, who came up with the plan to use Facebook to address the problem.

In September 2013, a by-invitation-only Facebook group was launched, where AFHT team members could view each other’s profiles and connect with one another. Activity within the group can only be seen by invited and accepted members, and all posts are monitored by designated group administrators.

“Will I get patients asking to be my ‘friend’ on Facebook?”

BARRIERS

In the period since launch productive use of the site has proven difficult. Privacy, time and lack of technical expertise seem to be the main barriers to joining and engaging with the group.

Those who were invited to use the site had two main privacy concerns centred around sharing confidential patient information online and putting information about themselves online and having patients access this information.

A common question was: “Will I get patients asking to be my ‘friend’ on Facebook?”

The first concern was largely relieved by providing clarification that the online group was only available to invited and accepted members, and that all comments would be moderated before posting. Organizers also pointed out that the site was not a place for posting specific patient information that might be identifiable, or for sharing any medical records.

To overcome the second concern, it was usually necessary to meet in person with a team member in order to help those potential group members set their privacy settings appropriately.

“I am just too busy to add another task,” was one how one family doctor responded when asked why he had decided not to join the AFHT group.

This was a typical response from many of the clinicians, whose time is in short supply. A team dietitian who had signed up but not used the site noted that it would take time she does not have to become familiar with the system and use it effectively.

Attempts to make the site sign-on process and associated tasks quick and easy have had only limited success in addressing the concerns.

While the platform was chosen, in part, for its ease of use there’s still a significant learning curve for those who do not use Facebook in their personal life — as well as some technical difficulty for those not generally at ease with computers.

Beyond the practical implications, a range of technical abilities among team members can undermine the very intention of an online community of practice, because you may end up with only a subset of the health team represented. Meeting with members in person to assist them with set-up and use of the Facebook platform has helped to convince people to join the group.

LESSONS LEARNED

One important lesson from the first months of the project has been that registration for the site does not necessarily lead to active participation. While more than 40 AFHT members have enrolled, site use remains minimal.

Much of the content to date has been posted by the project leads, and many of the other posts have come about only after a (friendly) prod from Lofters or Leung. One of the most significant comment streams on a post came after Dr. Philip Berger, then chief of the department of family and community medicine, raised a question about acceptance of pharmaceutical samples. This suggests that having a leader who is in a senior position with a group might bring extra incentive to participation, especially if the topic is a controversial one.

Another insight was the need for guidance to help show group members how the site can be best used.

More than one person changed his or her mind about joining once it was clarified that posts were not meant to be patient-specific. The group was asking for generalized questions such as “Does anyone know of a psychiatrist accepting referrals in the area?” or knowledge sharing about team and community resources such as “Here is a telemedicine telederm primer video.”

Asking why uptake in site use has been so challenging, Leung replied: “It’s difficult to get physicians to do stuff. You have to be able to prove that there is value … if you ask for something to be added into the daily workflow.”

Intuitively, a virtual community of practice could boost efficiency and indirectly improve patient care through increased internal referrals to specialized family health services and increased knowledge transfer. However, this is proving difficult to document, and can only be achieved when all team members are engaged with the site.

The experience with the St. Michael’s AFHT has shown that Facebook can be used safely and effectively in a health care setting — but to make the site work requires considerable staff support and encouragement.

As many involved in creating online communities of practice will attest, success is not a “hands-off” situation but rather one of “get in their face.”

Anyone interested in establishing an online community of practice, or who has experience creating or using a virtual forum similar to the St. Michael’s AFHT Facebook group, is invited to contact Emily Nicholas at nicholase@smh.ca

Emily Nicholas is a research assistant, St. Michael’s Hospital department of family and community medicine.
Clinical leadership
key to achieving value

William J. Pascal

EVERY PROVINCE OR MAJOR HEALTH
organization in Canada should have a
chief medical information officer
(CMIO).

This is a basic and tangible way the health care
system can engage physicians at the senior
level, and help ensure the digital health agenda
in Canada is providing value. And value for
patients is what is needed to meet the current
challenges facing the health care system.

In 2013, two papers were published that
highlighted these challenges: one in the May
edition of IRPP Insights by Steven Lewis and
Terrence Sullivan, the other in the October
edition of the Harvard Business Review by
Michael Porter and Thomas Lee.

While the Lewis and Sullivan article
focused specifically on Canada and the
Porter and Lee article took a global approach,
the solutions identified were remarkably
similar. To embrace the recommendations
made in these commentaries we will need
to create new structures of care delivery,
new accountabilities, and have an obsessive
focus on measurement that will challenge
current cultures.

Both pairs of authors call for an over-
riding strategy that focuses on maximizing
value for the patient, where value is defined
as health outcomes achieved for the patient
relative to the cost of achieving those
outcomes.

Porter and Lee note that becoming a
value-based health care organization (region,
hospital or primary care organization) can
only be driven from within because the effort
has to address entrenched interests and the
practices of many decades. They argue that
physicians and provider organizations need
to co-own all the system’s problems and be
partners in designing and implementing solu-
tions. Thus, they write, value is determined
by how medicine is practised.

This perspective is linked to changes to
the digital agenda in Canada — an agenda
that can be viewed as having three stages:
1. AMASSING DATA — through the use of
EMRs in physician offices and healthcare
facilities, and the development of registries
and databases of patient data
2. EXCHANGING DATA —by permitting
electronic access to patient data outside
individual facilities through registries and im-
age repositories; transfer of clinical messages
between clinicians, and telehealth
3. ANALYZING DATA —through the amal-
gamation of data into databases and data
warehouses, and the use of analytic and busi-
ness intelligence tools to analyze patterns in
order to influence care protocols and resource
distribution

Achieving value from the health care
system becomes more prominent as we move
from stage 2 to 3, and involves hard work by
physicians and other providers to ensure the
data exchange networks and data analysis
lead to better outcomes.

When we examine what needs to happen
with the digitization agenda to facilitate the
transformation of the health care system
over the medium term, a number of recom-
mandations arise.

To attain value, health care delivery
organizations need to involve physicians
in leadership roles, either as the head or
as part of the senior executive team (or
both). At a minimum, each of these organi-
sations should appoint a chief medical
information officer as has been done in
Manitoba.

One of the key responsibilities of physicians
in senior leadership roles, particularly for the
CMIO, is to assess whether an investment
in digitizing a health care process will result
in increased value. If the answer is "no", the
investment should be set aside or deferred
until further information is available.

All these organizations need to set up cli-
nical teams focused on achieving value from
digitization investments.

Canada Health Infoway should create a
CMIO forum or expand the current CIO
Forum to bring in more clinical leadership.

Infoway, in conjunction with the Canadian
Institutes of Health Research (CIHR) and/
or the Canadian Foundation for Healthcare
Improvement, should launch an aggres-
sive program of applied research to bring
the best evidence available to this group of
CMIOS.

All further funding of point-of-care
solutions such as EMRs(should be tied to
effective use criteria, based on the best
evidence related to care outcomes rather
than volume.

All provinces and territories and provin-
cial and territorial medical associations
should review current funding agreements
and identify changes that can facilitate
using digital capability to link physicians
with patients to enable email consults,
e-scheduling, e-prescription renewal,
telehealth consults (e-consultations) and
referral management between primary care
and specialists.

 Forums need to be created in which all
stakeholders can exchange insights and
offer feedback on policies, standards and
other matters that comprise the digitization
agenda focusing on increasing clinical value.

Both clinicians and health information
technology have key roles to play in health
system transformation. For this reason, it
is time to involve clinicians meaningfully in
leadership roles and to encourage more active
dialogue among all stakeholders to truly gain
value from health care investments.

William Pascal is the former chief technology
officer for the Canadian Medical Association and principal
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