Why an outdated communications infrastructure threatens patient care

MEANINGFUL USE 2

[By **MICHAEL McBRIDE,** *Technology Editor, and* **MORGAN LEWIS JR.**]

The communication bridge between primary care physicians (PCPs) and specialists is crumbling. And the repairs are costing healthcare billions of dollars each year in lost productivity and efficiency.

"When we send information to the non-PCP's office, it seems to go into a dark hole somewhere," says Marie Steinmetz, MD, DABFM, a family physician in Alexandria, Virginia.


Marie Steinmetz, MD

Ask specialists, however, and they may offer a different assessment. A study published in *Archives of Internal Medicine* in January 2011 found that 69.3% of PCPs said they "always" or "most of the time" notified specialists of patients' medical history and reason for consultation, but only 34.8% of specialists said they "always" or "most of the time" received the information. The disconnect threatens the quality of patient care, respondents say.

Time spent communicating with specialists about referrals is not only taking it away from patient care; it is inflating healthcare costs due to duplication in tests and radiographs. Why?

One reason certainly is related to technology. The American healthcare system, arguably the most advanced system in the world, mostly uses communication technology invented in 1842. Brought to wide industrial use by Xerox in 1964—48 years ago—no other technology has had the staying power of the fax machine. Even today's advanced critical care hospitals primarily move patient data from point A to point B by fax, albeit sometimes the version that sends scanned documents electronically via email or through an electronic health record (EHR) system as opposed to paper hand-fed through a fax machine.

Consulting firm Porter Research says that the majority of physicians continue to share most of their records with unaffiliated providers by fax and mail.

That means online pizza-ordering technology exceeds the data exchange ability of most hospitals

Stage of meaningful use criteria by first payment year

First payment year	Stage of meaningful use										
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
2011	1	1	1	2	2	3	3	TBD	TBD	TBD	TBD
2012		1	1	2	2	3	3	TBD	TBD	TBD	TBD
2013			1	1	2	2	3	3	TBD	TBD	TBD
2014				1	1	2	2	3	3	TBD	TBD
2015					1	1	2	2	3	3	TBD
2016						1	1	2	2	3	3
2017							1	1	2	2	3

The stage 2 rule extends by 1 year the date eligible professionals who have already attested to stage 1 can begin stage 2 attestation.

Source: CMS meaningful use stage 2 proposed rule

and primary care practices. And although a patient can speak to friends or family in Tokyo from a video screen in New York and exchange files with them, he or she cannot communicate with most physicians in this manner. Nor can most of you communicate with your peers this way.

Even with adoption of EHR systems, challenges exist in communicating with specialists electronically. In 2011, 86% of practices that used EHRs still sent information by fax because their systems couldn't communicate across networks, according to the American Academy of Family Physicians.

"It's kind of a mess," says Jordan Grumet, MD, an internal medicine physician in Highland Park and Grayslake, Illinois.


Jordan Grumet, MD

"I have one kind of EHR in my office, and it doesn't communicate with the kind in my hospital. And now since I'm at two hospitals, the second hospital is going to start a completely different kind of EHR than the one at my other hospital, none of which communicate," Grumet says. "I wind up doing a lot of printing and scanning in."

AGING INFRASTRUCTURE BIG ISSUE

Although many reasons exist for the current state of technology in most practices, the aging infrastructure is contributing to communication gaffes and miscues between PCPs, specialists, and pharmacists, which in turn could contribute to unnecessary testing and higher rates of medication and surgical errors.

Although fax technology may represent the present, it certainly is not the future, says Salvatore S. Volpe, MD, PC, an internist-pediatrician in Staten Island, New York. The Centers for Medicare and Medicaid Services (CMS) recognizes it, too. In fact, the agency has been one of the top drivers behind the push for physicians to adopt and use EHRs in their practices, with the belief that EHRs, even with their challenges, are an improvement over fax machines.

March 7, CMS officially posted in the *Federal Register* the proposed rule for stage 2 EHR meaningful use (MU). And although the 455-page document outlines 17 core objectives, one requires that PCPs send a summary of care record for each referral through an EHR. (See "Unraveling meaningful use 2," *Medical Economics*, March 25, 2012, Page 20, or www.MedicalEconomics.com/mu2.)


Salvatore S. Volpe, MD

With stage 2, CMS and the Office of the National Coordinator (ONC) of Health Information Technology anticipate that state and local health information exchanges (HIEs) will accommodate records transfer for most of the country. Currently, more than 230 HIEs have launched or are being developed.

It's likely that few burdens, however, worry you and your colleagues today more than complying with the government's HIE agenda and its subsequent MU imperative. The process can be complex and costly. Solo practitioners and small practices are particularly vulnerable to sudden income reductions. Implementing EHR systems can be quite disruptive to such practices as well. Nevertheless, if you wish to participate in this "healthcare revolution" and receive your share of the Medicare incentive funds for EHR implementation, you must accomplish the goals set forth in the now two stages of meaningful use attestation.

MEANINGFUL USE STAGE 2 VERSUS STAGE 1

If you've recently attested to MU stage 1, or if you're still at it, you need to know about significant changes to the process that affect how and when you can attest to both MU stages.

POWER POINTS

The proposed rule for stage 2 of meaningful use would require primary care physicians (PCPs) to send summary of care records in certain referral and transition of care situations.

The federal government expects that health information exchanges will accommodate records transfer for most of the country.

Stage 2 also would require that PCPs reconcile medications for at least 65% of patients whose care is transitioned to other providers.

Timeline for eligible professionals (other than hospital-based) to avoid payment adjustment

EP payment adjustment year (calendar year)	Establish meaningful use for the full calendar year 2 years prior:	OR	For an EP demonstrating meaningful use for the first time in the year prior to the payment adjustment year in a continuous 90-day reporting period beginning no later than:	OR	Apply for an exception no later than:
2015	**CY 2013** (with submission period the 2 months following the end of the reporting period).		**July 3, 2014** (with submission no later than October 1, 2014)		**July 1, 2014**
2016	**CY 2014** (with submission period the 2 months following the end of the reporting period).		**July 3, 2015** (with submission no later than October 1, 2015)		**July 1, 2015**
2017	**CY 2015** (with submission period the 2 months following the end of the reporting period).		**July 3, 2016** (with submission no later than October 1, 2016)		**July 1, 2016**
2018	**CY 2016** (with submission period the 2 months following the end of the reporting period).		**July 3, 2017** (with submission no later than October 1, 2017)		**July 1, 2017**
2019	**CY 2017** (with submission period the 2 months following the end of the reporting period).		**July 3, 2018** (with submission no later than October 1, 2018)		**July 1, 2018**

Notes: (CY refers to the calendar year, January 1 through December 31, each year.)
The timelines for CY 2020 and subsequent calendar years will follow the same pattern.
Eligible professionals can avoid Medicare's scheduled 2015 payment adjustment by attesting to meaningful use by 2013.

Source: CMS meaningful use stage 2 proposed rule

"The MU stage 2 [notice of proposed rule making (NPRM)] incrementally advances the requirements for attestation," says John D. Halamka, MD, MS. He is chief information officer of Beth Israel Deaconess Medical Center and Harvard Medical School, chairman of the New England Healthcare Exchange Network, co-chairman of the HIT Standards Committee, a professor at Harvard Medical School, and a practicing emergency medicine physician.


John D. Halamka, MD

"The criteria are reasonable and carefully polished," Halamka says. "The advice of the policy committee and the standards committee was taken very seriously, and the resulting NPRMs balance the need for change with the reality of implementation."

Originally in stage 1, physicians who attested to MU in 2011 could begin to attest to stage 2 in 2013. The new proposed rule extends that date to 2014. CMS' intention is to allow vendors the time they need to develop technology that can support MU stage 2.

ADDITIONAL MU CORE OBJECTIVES

MU stage 1 required physicians to meet or be excluded from 15 core objectives, as well as meet five out of 10 menu set (optional) objectives. The number of required core objectives under the proposed stage 2 rule would increase to 17, and the menu set would shrink to three out of five objectives.

"Previous menu set criteria are now core, HIE becomes real, and patient engagement is accelerated," Halamka says.

Most of the core objectives from stage 1 would remain the same and would be included in stage 2 with these notable exceptions:

- The "exchange of key clinical information" core objective from stage 1 would be re-evaluated in favor of a more robust "transitions of care" core objective in stage 2.
- The "provide patients with an electronic copy of their health information" objective would be replaced with an "electronic/online access" core objective.
- Multiple stage 1 objectives would be combined into more unified stage 2 objectives, with a subsequent increase in the measure threshold that providers must achieve for each objective that has been retained from stage 1.

ADDITIONAL CLINICAL QUALITY MEASURES

To qualify for Medicare incentive payments, eligible physicians (EPs) must report on certain clinical quality measures (CQMs). Stage 1 had six CQMs. In the proposed stage 2, PCPs would report 12 CQMs starting in 2014. These CQMs "align with existing quality programs such as measures used for the Physician Quality Reporting System, CMS Shared Savings Program, and National Council for Quality Assurance for medical home accreditation, as well as those proposed under

Children's Health Insurance Program Reauthorization Act, and under [the Patient Protection and Affordable Care Act] Section 2701," according to the rule.

CMS also has outlined a plan for EPs to report CQMs electronically. The agency is actively seeking public comment on the best methods to accomplish this directive.

COMPUTERIZED PHYSICIAN ORDER ENTRY

In stage 1, EPs were required to "use (computerized physician order entry [CPOE]) for medication orders directly entered by any licensed healthcare professional who can enter orders into the medical record per state, local, and professional guidelines." Beginning as a stage 1 option in 2013 and as a requirement in 2014, "more than 30% of medication orders created by the EP...during the EHR reporting period are recorded using CPOE." Under the stage 2 proposed rule, that number would increase to more than 60%.

CMS also proposes to expand the stage 1 objective so that it includes laboratory and radiology orders in addition to medication orders.

"We believe that the expansion to laboratory and radiology furthers the goals of the CPOE objective, that such orders are commonly included in CPOE rollouts, and that this is a logical step in the progression of meaningful use," CMS explained in the proposed rule.

AVOIDING MEDICARE'S SCHEDULED PAYMENT ADJUSTMENT

Medicare plans to adjust its payments to PCPs in 2015, presumably downward. To promote and accelerate attestation of MU, the proposed rule for MU stage 2 includes provisions for EPs who wish to avoid reduction in their payments. EPs who attest to MU by 2013 can be excluded from payment adjustments in 2015. And EPs who can demonstrate MU within 3 months of the end of 2014 also can avoid the 2015 payment adjustments if they also can successfully attest to MU by October 1, 2014.

IMPROVED CARE COORDINATION BETWEEN PCPS, SPECIALISTS

Back to the issue of fragmentation and the lack of quality when care providers cannot effectively

DIRECT PROJECT GAINS MOMENTUM

After several successful pilot programs around the country, physicians using electronic health record (EHR) systems nationwide now should be able to exchange data with each other using the Direct protocol, according to the Office of the National Coordinator (ONC) of Health Information Technology in a March article in *Health Affairs*.

Launched in March 2010, ONC's Direct Project created a protocol, which is basically computer code, to enable "a simple, secure, standardized way to send encrypted health information to trusted recipients over the Internet, enabling providers to meet meaningful-use exchange requirements," according to the ONC-authored article.

To access a Direct service, both providers need to have Direct protocol addresses, which are similar to email addresses. Those addresses, however, must be obtained through a technology provider, such as your EHR vendor or another organization, such as the service from the American Academy of Family Physicians (AAFP) Physicians Direct program (keep reading for more about that program). At the beginning of the year, more than 35 vendors had incorporated the Direct protocol into their products, according to the ONC.

In June 2011, Darrin Menard, MD, a family physician in Scott, Louisiana, subscribed to Physicians Direct. The service, which is available to AAFP members and non-members for a $15 per-month, per-physician subscription fee, uses a nationwide network established by pharmaceutical services company Surescripts.

The Surescripts Nation's E-Prescription Network processes 3 million message transactions a day. Physicians Direct is designed for physicians to send and receive discharge and visit summaries, patient charts, referrals, lab orders, and results.


Darrin Menard, MD

"I have been doing [EHRs] for about 7 or 8 years now, and we just needed to have a better way to communicate," Menard says. Before, he was using ordinary email to communicate with physicians, but he wasn't able to send records in a secure, Health Insurance Portability and Accountability Act-compliant manner.

Now, through the AAFP's service, Menard sends a patient's records, with the patient's permission, to an online portal. The specialist is alerted by a message sent to his or her regular email address that Menard has sent a message that can be retrieved by visiting the portal.

Menard needed to explain the service to specialists before sending them records.

"They were a little confused," he says. Once they understood the system, however, most specialists signed up to receive records, but only one subscribed to send records. The subscriber was a plastic surgeon in New Orleans, more than 150 miles from Menard.

"They know that this is the way we need to communicate," he says, "but it is just the logistics of getting everything set up with every doctor in our community that we refer to. How do you talk to 300 doctors at one time?"

In February, the American Medical Association (AMA) announced a similar service, through a partnership with AT&T HealthcareCommunity Online, a nationwide health information exchange platform.

The information exchange can be accessed through the AMA's online practice management software portal, called Amagine, which was unveiled in April 2011. The addition of the AT&T Healthcare Community Online, which uses Direct protocols like the AAFP's service, allows primary care physicians to share care summary records, continuity of care information, and other patient information to specialists either within or outside the community. Physicians also can send records without becoming a community member. AT&T declined to disclose the subscription fees for members.

—By Morgan Lewis Jr.

THREE EARLY ADOPTERS DISCUSS CHALLENGES

Salvatore S. Volpe, MD, PC, an internist-pediatrician in Staten Island, New York, exchanges information electronically with six specialist physicians in his community.

He's able to share data through his electronic health record (EHR) system, but sending the information to another practice requires more than just pushing a button. In fact, not only should you confer on systems, you may need to convince specialists of the importance of communicating electronically, he says.

"Some specialists are just not interested," says Volpe, a *Medical Economics* editorial board member. "They say, 'It's not in my workflow.' " The trick, he says, is getting buy-in from the specialty practice's office manager.

"If you can win over the office manager, then you can convince the doctor," Volpe says. "The pharmaceutical industry learned that decades ago."

Volpe sends records automatically to other physicians who have the same system, or to an online portal to securely facilitate the exchange of information. This year, most certified EHR systems should have the ability to send patient chart information using "Direct" protocols where a trusted referral physician can access the records through an online portal. (For more on Direct and the Direct Project, see "Direct Project gaining momentum," Page 23.)

Volpe says that some providers who were reluctant to receive records online eventually agreed. One cardiology practice to which he refers patients waited more than a year and a half before choosing to receive records electronically. And that decision occurred only after Volpe encountered the office manager at an awards dinner.

With electronic transfer, the specialists need to add a step into their workflows for receiving chart information and referral documents, just as they did with the fax machine. "Once they access it and get it into their routine, then they realize the real value," Volpe says. "But if they're not interested, that's fine. You don't want to force the issue on somebody."

Volpe estimates he sends patient clinical data to one or two specialists per day, usually in a continuity of care document format, which is compatible with most EHR systems or readable as text. He would like to send data 10 to 20 times a day but says he expects to reach the 10% or more threshold of stage 2 meaningful use (MU) before 2014.

"My job this spring is to be very aggressive and get my network up and running so I can get more correspondence from the cardiologists, pulmonologists, and surgeons," he says. "It's just a matter of repetitive calls."

Independent physicians feel left out

The many competing health information exchange (HIE) solutions perplex Steven Bush, MD, MPH, FACOG, an ob-gyn in St. Charles, Illinois, and owner of Fox Valley Women and Children's Health Partners, a 21-provider ob-gyn and pediatric practice.

Steven Bush, MD, MPH, FACOG

"What I see with HIE is, a lot of it deals with publicly funded healthcare facilities," Bush says. "Those [facilities] are able to link up because they are all under one umbrella."

The challenges are much greater for large and small independent physician groups, as well as for hospitals, however. "No one has yet come to the table and been able to get everybody on board with that," he says.

Bush does electronically transfer records between physicians because his practice is completely paperless, although his method wouldn't comply with stage 2 MU. Bush gives patients their charts saved to flash or zip drives, which cost him $2 or $3 each. The records are PDFs, so they can be read by another doctor even if he or she doesn't have an EHR system.

"It is easier to look through a zip drive than it is to look through a lot of paper," he says. "To pull up specific things about their health record is easier, but people can't walk around carrying zip drives."

Cautious optimism

Tripp Bradd, MD, FAAFP, a family physician and owner of Skyline Family Practice, a two-physician practice in Front Royal, Virginia, is a EHR early adopter, having implemented his first system in 1993.

Since then, Bradd has stuck with the same EHR system but added e-prescribing, voice recognition software, a laboratory interface, digital electrocardiography and spirometry, and on-demand patient education.

Tripp Bradd, MD, FAAFP

On the front office side, his practice management system calls patients to confirm appointments or leaves a voice message reminder. On his Web site, patients can register, enter their medical histories, request refills or appointments, communicate with physicians, and pay their bills.

Yet even Bradd hasn't been able to electronically transfer patient files, other than saving data to CD-ROMs and snail-mailing them to other practices.

"We're working on it," he says. "We're right on the cusp. Thank goodness we have until 2014."

Complying with stage 2 MU will pose many challenges, but sending a care summary record from your EHR to a doctor across town shouldn't be one of them. Options exist for electronic information exchange. Contact your EHR vendor to see how it will help you comply with the next stage, and start talking with physicians in your specialist network about their interest in receiving records electronically.

Volpe, in Staten Island, New York, is optimistic about the future, and he believes the technology will create needed efficiencies in the system.

"Even though we're a third of the way through 2012, I can see it happening in a year and half," he says. "You just need a critical mass."

—By Morgan Lewis Jr.

exchange patient data in an accurate, timely manner. Contained in the stage 1 menu set is the option that EPs perform medication reconciliation on at least 50% of patients who are transitioned to other care providers, such as a hospital or specialist. Under stage 2, that option would be a requirement, and the percentage would be increased to 65%.

Additionally, EPs would be required to provide a summary of care record for that 65%, up from 50% in stage 1.

Lastly, the stage 2 proposed rule requires that in a least 10% of cases involving transitional care, EPs who transition a patient into the care of another provider must electronically transmit via certified EHR a summary of care to someone outside of the practice who is using a different certified EHR. This electronic data transfer objective is required only as a test under stage 1.

These are only some of the MU objective/measures either being altered in stage 1 or being added in stage 2. Many others affect you as a PCP; however, these mostly address the issue of fragmented

"It's best to get on the 'escalator of MU' now, finish stage 1, and then begin the climb to future stages."

—John D. Halamka, MD, MS

care and the MU policies CMS is using to promote inclusionary healthcare activities.

THE FUTURE OF HEALTHCARE

Halamka suggests that "at the end of stage 3, we'll have a 'learning' healthcare system in which best practices are shared, outbreaks and problems with medications are detected early, and population health is empowered via HIE and analytics."

One example of success in improving communication between PCPs and specialists may be a unified medical record such as the one already in use at Veterans Affairs (VA) medical centers.

"It's real time," says Natalie Mariano, MD, an internal medicine physician in Hyannis, Massachusetts, who used to work in private practice but now practices at a VA facility. "Someone sees a surgeon in the morning and by 2 p.m., I've got the note there. That's been a huge advantage."

Natalie Mariano, MD

All physicians—PCPs and specialists—can access test results as soon as they appear in the system, and they can access records for patients who have received care at other VA facilities, she says.

Outside of the government, however, such systems may not offer the ultimate solution to addressing the inefficiencies of the U.S. healthcare system.

Gregory Hood, MD, an internal medicine physician in Lexington, Kentucky, and a member of the *Medical Economics* editorial board, recently accompanied a patient on a visit to a large multispecialty healthcare system that uses a common chart shared by surgeons, oncologist, and consultants.

Gregory Hood, MD

"To the patient, it looked very cool. As a physician, what I saw really proved to me that the concept of developing the one world chart...doesn't work," he says. "When you've got people going off a common data set instead of generating it all themselves, they clearly didn't understand it the same way.

"It ended up being very helpful for the patient that I was there, because there were a number of missteps or lacks of understanding where they could have gone in the wrong direction or led to needless duplication. So [that approach] is not necessarily going to save money."

Even if EHRs offer easier access to information and an alternative to deciphering someone else's handwriting, Grumet believes the most effective way to communicate with specialists is technology that's been around even longer than the fax machine: the telephone.

"I still believe that direct conversation with your specialist is still probably the most effective way to communicate, and I've been on EHRs since 2003," he says.

ADVANCES WILL SUPPLEMENT EXISTING TECHNOLOGY

But future advances may supplement existing technology—old and new—for the betterment of healthcare in America.

"In the next 10 years, we'll have an ecosystem of modular applications—think of it as a healthcare app store—that can serve as nodes on HIEs providing decision support, patient/family engagement, and novel functionality we cannot even envision today," Halamka says.

And trends such as accountable care organizations and Patient-Centered Medical Homes may influence care provision, inside and outside such models, to the benefit of PCPs as well.

"If I could change one thing in the healthcare system, it would be that everybody has to send everything they do to the primary," Steinmetz says. "We spend hours every day looking for patients' labs, x-rays, consults, etc."

But it all begins with your commitment to HIE and attesting to MU. Without your involvement, none of it can happen. And the sooner you begin the process, the earlier you can reach your goals and receive incentive funds.

"The stage 2 NPRM includes refinements to stage 1, making it easier to attest," Halamka says. "It's best to get on the 'escalator of MU' now, finish stage 1, and then begin the climb to future stages."

Halamka has created a detailed PowerPoint presentation that summarizes the MU stage 2 proposed rule. You can download it at http://mycourses.med.harvard.edu/ec_res/nt/3119C6E1-2533-4149-8F6B-259FC2AC4C64/mu2.ppt. ME

Additional reporting by Jeffrey Bendix, Lois A. Bowers, Diane Sofranec, and Daniel R. Verdon. Send your feedback to medec@advanstar.com. Also engage at www.twitter.com/MedEconomics and www.facebook.com/MedicalEconomics.