Electronic Health Records Improve One Step at a Time

Providers optimistic about future of health communication

By Vanessa Orr

Eleven Alaska hospitals are on board Collective Medical Technologies' Emergency Department Information Exchange (EDIE), which is designed to reduce unnecessary emergency department visits while making sure that patients get the right care in the right place. Collective EDIE is at the core of the Collective platform; the colored hexagons across the middle represent the links between different branches of healthcare and how they work within the platform.
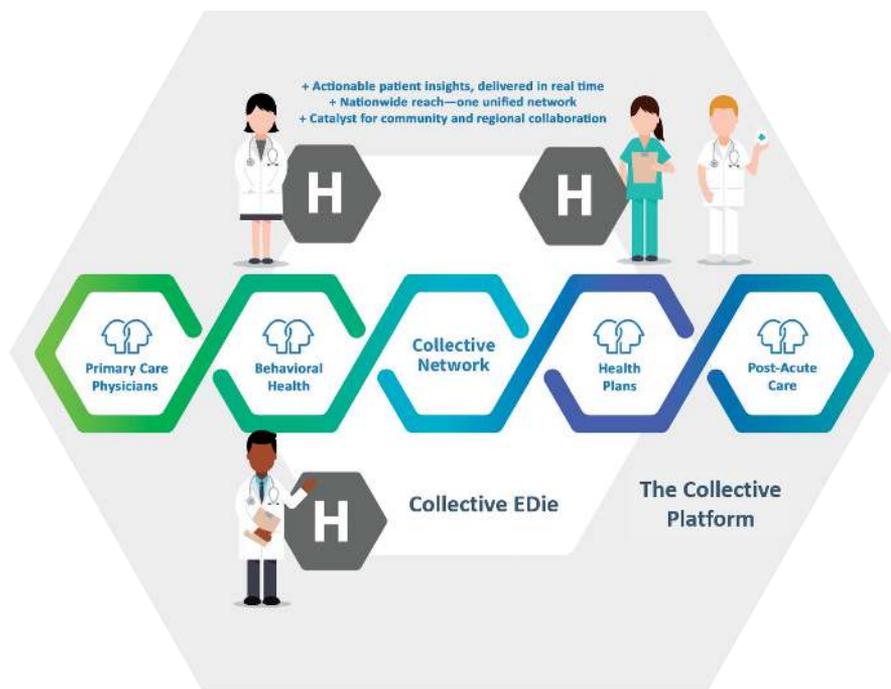
Collective Medical Technologies

I t's ironic that "on paper" the idea of electronic health records (EHRs), which provide an easy way for physicians, hospital systems, and patients to keep track of a person's medical history, makes a lot of sense. In practice, however, the process of creating a database where these records are safely and efficiently available to everyone who should have access (and protected from those who should not) has not been without its share of problems.

The good news is that while there have been some difficulties, the majority of health providers in Alaska are moving toward a system that will enable more complete medical information to get into the hands of care providers more quickly while making it easier and more convenient for patients to see test results, pick up prescriptions, and travel around the state without having to carry their medical information with them.

"While we went live with our first EHRs in 1998 and still use the same vendor for our main facility, it doesn't look anything like it did twenty years ago," says Kirsten Kincaid, RN, manager of clinical applications at Bartlett Regional Hospital in Juneau. "We've gone through many upgrades to improve functionality."

Integration Challenges

One of the biggest challenges that healthcare providers face is getting records systems to talk to each other—not just from one hospital or provider to another but even within their own facilities. For example, Bartlett Regional Hospital uses a "best of breed" approach, utilizing MEDITECH for inpatient and outpatient hospital settings, eClinicalWorks for ambulatory, Plexus for anesthesia, and T-System for the emergency department.

"Best of breed is seen at healthcare organizations across the country," says Kincaid. "While some of the largest organizations may use one vendor, like Epic, smaller organizations, sometimes due to cost constraints or other issues, use a variety of different products."

Even when entities share a domain, such as the Southeast Alaska Regional Health Consortium (SEARHC) and the Alaska Native Tribal Health Consortium (ANTHC), some information may not be shared among providers if they are not on the same system.

"For example, an oncologist might come to Juneau once a month to visit with your patients—how do you share information with that person's practice?" asks Peter Apathy, SEARHC IT project manager. "While the interoperability piece is getting better, it's not quite there for us, though we're pretty darn close."

Even hospitals that use the same system may have training issues, as different departments may not always see the same screens. "We use Epic software, and while it's pretty easy to learn, not everyone sees the same menu," explains Alaska Regional Hospital's Ethics and Compliance Officer Tom Kent, who formerly served as the healthcare facility's health information manager. "I may be talking to them about something on-screen, but their view may be different, depending on what department they're in."

Many Pieces to the Puzzle

There are so many different facets to EHRs that it's not surprising that there are still bugs to be worked out. While IT departments in hospitals, outpatient clinics, physicians' offices, pharmacies, and other healthcare entities are working within their own facilities to upgrade and adapt their systems, state agencies and medical associations are also spearheading efforts to bring EHR adoption to fruition statewide.

The Emergency Department Coordination Project—a collaborative project between the Alaska State Hospital and Nursing Home Association (ASHNHA), the state of Alaska, and the Alaska Chapter of the American College of Emergency Physicians—is a prime example. The Emergency Department Coordination Project is in response to Senate Bill 74 Medicaid Reform, which passed in 2016 and includes implementation of an electronic information system to be used in emergency departments.

"Right now, we've got eleven hospitals on board Collective Medical Technologies' Emergency Department Information Exchange [EDIE], which is designed to reduce unnecessary emergency department visits while making sure that patients get the right care in the right place," says Connie Beemer, MBA, PMP, director of member services and operations at ASHNHA. The project—modeled after Washington's ER is for Emergencies Project—saved Washington state $33.6 million in one year.

"We brought this project forward to our members voluntarily as an association, and most all came on board," Beemer continues. "We've had some delays, but not as a result of technology barriers—many of our members have had to go through legal reviews, especially if they are part of larger systems in the Lower 48. But we're headed in the right direction; we've got buy-in."

Once all of the contractual obligations are met, the EDIE will include fourteen critical access hospitals in Alaska, four acute care centers, four community hospitals, and two psychiatric hospitals. Because military hospitals are under the federal system, it is not yet clear if they will be involved.

There are many advantages to emergency departments sharing information. Now that the EDIE is connected to the state's Prescription Drug Monitoring Program, hospitals will be sent alerts when a patient

Collective Medical Technologies' platform connects all portions of healthcare to close communication gaps.

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checks into an emergency department and meets certain criteria. "It's good for physicians to know if a person is on a care plan, or if they have been getting prescriptions from different sources," says Beemer, adding that previously doctors had to query a data repository instead of receiving automatic push alerts.

"The EDIE also provides security alerts that help to protect healthcare workers against violence because it lets them know in real-time if there was a problem with this patient at another facility," she continues. "Before, a patient might go to multiple emergency departments, and none of them would know if there had been a previous issue."

Beemer says that the system also removes the implicit bias that a provider may have when forced to make a subjective decision about a person's care. "Before, you would have to look at a patient and try to decide if there was risk," she says. "Now the system will tell you—it removes that 'gut check.'"

The Emergency Department Coordination Project also includes a patient education component and establishes uniform statewide guidelines for prescribing narcotics in an emergency department.

Phase two of the project includes widespread adoption of a portal for other doctors, such as primary care physicians, to input patient care plans into the system. The portal also provides alerts if their patients are seen in emergency departments. In the future, the system might also be used to provide mobile information to emergency medical service workers and to input advance directives.

For now, however, the focus is on resolving contract issues to get all of the ASHNHA's members onto the Prescription Drug Monitoring Program. "We're trying to keep the scope manageable for now," says Beemer. "We're taking on small bits of the elephant a piece at a time."

The Alaska Health Information Exchange (HIE), also known as healtheConnect Alaska, is designed to allow healthcare organizations across the state that use EHRs to safely, securely, and quickly share patient medical records. This is especially helpful for patients in rural Alaska, who often have to travel for medical care and need their records to travel with them.

In June of 2018, healtheConnect (formerly the Alaska eHealth Network) contracted with NextGate to use its Enterprise Master Patient Index for care collaboration and patient identity management. Once it is fully up and running, the Enterprise Master Patient Index system will enable real-time interoperability and patient matching across health IT systems for more than twenty hospitals and 450 healthcare organizations. The HIE will also give patients access to their own health records in a secure platform.

"Right now, the HIE is in the process of being built, so the benefits are still limited," says Kent, adding that Alaska Regional is a member of the HIE and currently takes advantage of "de-identified" information, such as demographic data required by meaningful use guidelines. "There is no patient-specific information available yet, so you can't find out, for example, if your patient was treated for pneumonia somewhere else. But as it progresses, more and more information will be added."

Some organizations, like SEARHC and ANTHC, are already working together to share domains and information in order to provide healthcare providers with accurate, real-time information. "[Alaska Native Medical Center] and Southcentral Foundation partnered to purchase the Cerner EHR system six years ago and decided to invite partners into their shared domain, which was pretty unique at the time," says Apathy. "They extended an offer to SEARHC to join and share records, and we were the third hospital to come on board."

"The beautiful thing about this from a provider's perspective is that we send a lot of patients to Anchorage from Southeast for orthopedics, cardiology, and neurology, and their record there is now our record," he continues. "One of the biggest challenges when you send a patient somewhere else is finding out what happened to them and what the surgeon or anesthesiologist had to say. Now if we want to know, it's all there in the record."

In addition to helping providers, Apathy says that EHRs benefit patients because they provide continuity of care. "Some of our patients travel quite a bit; they may stay in Anchorage part of the year, then move to Kotzebue in the summer to work at a fish camp," he says. "They may not always know what medications they've been prescribed or have a copy of a CT scan or MRI that they had done somewhere else. With EHRs, the provider can look it up and share that information with the patient."

Meaningful Use
The Medicare EHR Incentive Program, commonly referred to as Meaningful Use, has changed as more healthcare systems have adopted the technology. "I believe that 2017 was the last year of incentives—if you don't meet Meaningful Use now, you lose a portion of reimbursements," explains Kincaid.

"When we first started Meaningful Use, it was very clear what you needed to do to get incentives, but as time went on, the rules changed, and now incentives are done," agrees Apathy. "There are no more carrots; only sticks. If you don't meet meaningful use, you will be penalized."

In 2018, it is mandatory for all participants to meet Stage 3 of Meaningful Use. Among other rules, it requires participants to conduct security risk analyses to determine vulnerabilities in EHR systems that could lead to data breaches; have more than 80 percent of their prescriptions queried

for drug formulary and be transmitted to pharmacies electronically; provide access to EHRs to more than 80 percent of patients; and work with HIEs to ensure that more than 50 percent of care transition and referrals that include the exchange of healthcare records be performed electronically.

"Part of Stage 3 focuses on interoperability, which includes opening up the system for patients to have control of their own data," says Kincaid. "It puts more of a focus on the communication between patients and providers, as well as makes data accessible in a mobile setting.

"This is a big deal for us because we work with a lot of Alaskan patients who don't live in Juneau and international patients who come in on cruise ships, and they'll now be able to access their information through their phones or tablets and share it with their providers back home," she continues. "This type of access wasn't available before EHRs, and it really supports continuity of care."

As part of Stage 3, healthcare facilities must make sure they have protective measures in place to prevent data from being breached. While this is required to happen this year, patients can take comfort in the fact that healthcare providers are already monitoring and protecting their EHR systems.

"We do a lot of audits on multiple levels of access in order to verify that only people who are supposed to have access to certain records are the ones seeing them," says Kent. "There are a lot of firewalls in place, which sometimes adds a burden to physicians' offices, for example, who might have to go through a few more screens and firewalls, but we are confident that patients' records are well protected."

As EHRs continue to develop, providers hope that it will become easier for them to enter and share records and for patients to get the information they need to take control of their own healthcare.

"There is still a ways to go; it's still too hard to find information and it takes too many clicks to get to the right data at the right time," says Kent. "Medicine is complicated, and it's hard to build the perfect system that takes into account people's complexities and conditions and how we all communicate with each other. It's not like building an ATM."

He adds, "It's a tall order, but I'm optimistic that it's getting there." AB