The End of the Record As We Know It

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The vinyl record is gone from music, and the paper record is exiting healthcare. But the music keeps coming-in fact, more of it, in smaller and smaller pieces. What does the future hold for that touchstone of health information management-the record?

Not that long ago, the music industry recorded, managed, and distributed music in an analog format: it recorded music on tape and distributed it on vinyl.

Those days are gone. Professional-grade recording tape is no longer made, and vinyl records have become a boutique product, pressed for aficionados, not intended for mass distribution. Now music is captured, managed, and distributed digitally.

Health information is traveling that same arc.

Several forces are bending the health record: technology, healthcare reform, and a movement toward patient-centered care. Each is exerting pressure to capture, manage, and share health information as a series of ongoing "data elements," not a collection of documents filed in a folder-or in the music analogy, as songs, or even bits of songs (think ringtones), not as LP records.

Four AHIMA practice experts gathered for a roundtable discussion on the changing nature of health information management and the parallel evolution of the profession. Michelle Dougherty:, MA, RHIA, CHP, is a director of practice leadership at AHIMA. Lydia Washington:, MS, RHIA, CPHIMS, and Harry Rhodes:, MBA, RHIA, CHPS, CPHIMS, FAHIMA, also are practice leadership directors. Diana Warner:, MS, RHIA, CHPS, FAHIMA, is a manager of professional practice resources.

The Health Record: Past, Present, Future

Dougherty: Just to get us going, I think we could quickly say that where we've come from is an episode-based healthcare system in which there is a contained record for that episode or encounter.

We then went into this hybrid model [of paper and electronic records]: still very episodic or encounter-based. The electronic systems are somewhat continuous, so there isn't necessarily a start and a stop based on an episode-you just keep adding data.

That's the direction we're going, where you don't see any paper-based records or document image-type records based on an episode or encounter of care. The electronic systems are continuous.

But what do you call the contents? That's a great question.

Washington: It's patient-centered health information; it's not necessarily a record. I guess I wonder whether or not, in the future, we will have both.

We'll have the patient-centered information-this whole idea that patients themselves pretty much own and manage information about themselves that is critical in rendering care. But for all of the business reasons that we're well aware of, we've got to have that institutional record, too: our business record. I don't know how we get away from not having those.

Dougherty: These systems that we keep continuously adding onto-they seem longitudinal. I think of it as kind of an arrow that just continues on a horizontal plane. But for business reasons, healthcare providers need to still be able to archive what they've decided is official representation of their records, their content, to meet their billing, compliance, regulatory oversight, program evaluation, and litigation needs.

It's going to be hard to completely move away from encounters and episodes for business purposes. So you've got these horizontal, longitudinal records, and then you have these vertical subsets of defined record sets, archived for business purposes.

Rhodes: It's going to be a cultural change to move away from an episode[-based record]. That is how we build it... even how the patient sees it: "I come to you; when are you going to release me? When am I going to be cured?" There's a beginning and an end. And you're right: for any kind of oversight activity-quality control or anything-you're looking at episodes.

Dougherty: However, as we go to new patient-centered care models, like accountable care organizations or value-based purchasing or patient-centered medical home, we might actually be moving away from the episodic, where providers are paid more to take care of the patient than they are paid for the services that they provide to take care of the patient. Fee-for-service could be going away. That is basically what we focus a lot of our billing, compliance, and data collection on.

It brings up Lydia's point. If that really is what we go to-these patient-centered models of care-then we must have patient-centered models of maintaining health information as well.

Warner: And that would make sense [that we move away from the episode], because when you're requesting information to be released for continuing care, you're not requesting everything for this patient visit, or this outpatient encounter, or even an inpatient encounter, if there've been multiple visits. You're already seeing that crossover; you're sending what they need to take care of the patient, and it's not episodic.

That would be a definite shift, but with the electronic record, it's easier to see, because you don't have to keep things so separated in the record. You don't have to have different file folders; you don't have to worry if there's enough room. Part of [our old model of the record] was just how we filed things.

Dougherty: I see a time where we're putting as much focus on identifying the high-value data as we now put on creating the data. The high-value information will be readily available for search, for exchanges, patient access…whatever it might be.

And then we need to address how data is tagged so a physician at their desk can do a search of a medical exchange [network] for a certain type of information about a patient and be able to find it.

What might be coming is an EHR application that has a Google-like search bar and has predefined data elements for identity purposes. The physician puts in some keywords and up come results for other information that they can find from different entities' EHRs and exchange networks.

What Is the Health Record?

What has shaped our current definition of a record? In large part, the paper folder. How we physically filed documents has been a determining factor in the record format we created. But what comprises a “record?”

Dougherty: The traditional definition is basically any piece of information related to diagnosis, treatment services.

And then, over years we've established what those standards are, through different documentation tools that are used to collect that information. There are a lot of definitions around records, and those definitions and the content are often decided by regulations. Payment is a huge content creator.

So I think there are a lot of external forces that have shaped what data elements we're collecting. And how they're combined into data sets, and what we call records or forms has evolved over time to be a pretty standard set.

Warner: I'm thinking traditionally here, but I also think of a record as a collection of data that tells a story. Which is another issue that's out there, and a reason why we probably, at least in my opinion, won't see the records that we know go away completely. Because there still does need to be that story to take care of the patient.

That's the highest purpose of the record-to protect and support care for the patient.

Moving from Documents to "Data Elements"

Dougherty: You hear this a lot lately, trying to get to a piece of data-getting to the smallest increment. The PCAST report has generated a lot of talk about this.

Not everything is capable of being broken apart by the individual data elements. You see that right now-there may be required documents made up of all these different pieces of data; that set of data elements would have to be tagged.

Another thing to keep in mind is context. To interpret some data elements correctly, you need to know the context it was recorded in-as part of a larger assessment instrument, a vital sign recorded under anesthesia, et cetera. That information would have to be attached.

But I do think there is a handful of information that could be tagged at the data element level that's high value: a problem or diagnosis on a problem list.

One of the unknowns would be, as you look at the EHR and the data we're collecting, what is of high value that should be available? Should everything in an EHR system for a patient be tagged and available for exchange and re-use for any possible purpose? Or is there some type of subset that is identified, that's of high value? And that's where I think HIM really can help identify what may be high value, or what sets of data would be high value, and how they may be tagged.

Rhodes: You know what I'm thinking about? I'm thinking about how many times I've gone out and tried to use the search engines in electronic libraries, and I get bits and pieces but not really what I want.

And then I go over and talk to Maggie [AHIMA's reference librarian], and somehow Maggie miraculously pulls up all this stuff that I didn't even know was out there in that universe.

Is it going to be the same thing? You could do a search and pull together a record for a visit, but if you're not very good at it or the information you need isn't tagged very well, you get data and you get information, but it may be missing bits and pieces, or it may not be the right information.

Dougherty: It seems we're in this search-engine mentality, that's the direction we're going: just give me everything you have on this person.

But I don't think that's what's going to provide high value-it's going to be data overload. We get that now, and you're exactly right: too much, and it's not the right information. How do we make sure that does not happen to our healthcare community?

In HIM, we know what the whole record looks like, and to think that every single data element would be out there for exchange is a really scary proposition. To not have a cluttered universe, I think we have to help identify what are the most useful, valuable pieces of information, in the smallest data element or sets of data elements, that can be available.

That's something I think about when I read the PCAST report-HIM sees the whole record; everyone else sees only the pieces that are fit for their needs.

Washington: I would agree with that, and I think HIM has a big role to play. I like the term that you used, "high value," because when you think of all of the stuff that's in the record, who cares about what my vital signs were on February the 5th, 2011, when it's now 2012? That information was really only good at that particular point in time for my care.

What is the standardized set of data that we need on everybody, that we could easily exchange as they go to different places for their care? When you think about it, the whole reason why AHIMA was founded back in 1928, was to standardize the record, or the data going into the record. Well, here we are now, and it's more critical than ever.

Dougherty: Maybe this is what it was like in the early years of forming HIM as a profession. Were there progress notes? Maybe not. Interdisciplinary progress notes, and this concept of assessments, that you record your physician orders in this way... It was taking very unstructured, individualized processes and allowing for some individuality but putting some structure around it.

And I feel like we're back to that Wild West a bit right now, especially as we talk about exchanging information. How can you use today's tools to put some level of organization around it, so the most important information, that high-value information, is retained, memorialized as part of these systems, and then available for the individual patient as well as available for exchange with other providers?

Warner: I do think that at some point, especially if we go to these patient-centered models of care, that it is going to become a lot more important for patients to get their information. And somehow, we have got to figure out a way to support that. Whether it be with these standardized data sets we're talking about-I'm sure that's a big part of it-or educating people about what they should be keeping. There's a lot to be done. I do think HIM is going to change because of all this.

The PCAST Report

Talk of managing health information as “data elements” shot up the charts this winter with release of a report by the President's Council of Advisors on Science and Technology in December 2010.

The council's members, who have backgrounds outside the healthcare industry, were asked to examine how health IT “could improve the quality of healthcare and reduce its cost, and whether existing Federal efforts in health information technology are optimized for these goals.”

The council largely agrees with the current goals and assessment of the barriers. In places, however, its recommendations represent significant departures from current thinking on how to manage health information.

The report concentrates on health data-not records. For example, it advocates greater use of metadata as a more effective means of sharing data and a more controlled way of managing patient privacy preferences. The Department of Health and Human Services has been asked to consider the report's recommendations as it develops its stage 2 criteria for the meaningful use program.

The report is available at www.whitehouse.gov/sites/default/files/microsites/ostp/pcast-health-it-report.pdf.

Changing HIM Roles

Dougherty: I think the skill set of the data analyst role will be mainstream. It's going to be a big part of what HIM does, where in the past it had been about managing the physical records. There will be another new role in health information governance and stewardship.

Washington: I agree. And I don't know that we'll have as much interaction with the actual individual records. [We'll begin to work] from more of a policy and process standpoint, having an understanding of what the policies should be and to setting up ways to enforce or to support those policies within systems, whether they be the patient-centered systems or the institutional-centered systems. I think there will be a role in both.

Dougherty: It's interesting to read the literature-consumer informatics is a growing field.

Warner: I think we're going to become more of a patient advocate, because even today patients don't know what to get from their record, and they will ask for any and all because they don't want to miss anything.

And as Lydia pointed out, there may be times when that vital sign at two o'clock on February 5th wasn't important, but there may be times when you do want to trend the blood pressures or the A1Cs to see how the patient is managing their care. And just understanding by disease what a patient may need you can help them to request the information that they need.

Dougherty: I wonder if there's going to be a new role for an integrity manager. More and more, people are talking about the need to address data and record integrity in information exchange, because of how important it is to have credible information and how dangerous inaccurate information can be.

How do you architect integrity checks on your data, how do you go through improvement processes? How do you handle updates, changes, or requests that come in from the patient, because we know that's going to be much more prevalent? What if you've disclosed information and you need to claw it back because it was incorrect?

This model [of tagged and shared patient information] is built on some assurances that the data that's being exchanged is good data, and there really isn't an infrastructure to ensure that. And all we see right now is, anecdotally, how poor the data can be. I think it's going to be an emerging role that HIM will fill.

Washington: We really haven't paid a whole lot of attention to errors in the record in the paper world. Our whole processes were set up to catch that at the front end before anybody saw it. But now, with data just going in everywhere and processes having to change, we may have to change our approach to that. And so the people who are currently doing analysis on records, their roles may change to look at exception reporting or things that are unexpected, or mine data to look at the quality of the data in the record.

I don't think [changes in the HIM profession] will simply be a matter of how information and information management change; I think it's also a matter of what happens in healthcare in general. In my opinion, reform and new models of care will determine a lot of what we do in the future.

Rhodes: I think that if parts of healthcare reform stick-the parts prohibiting payers from refusing people with pre-existing conditions and putting a lifetime limit on benefits-then this current model of paying for care when people have a problem is not going to work anymore.

Payers are going to want to get in there sooner and keep you from having pre-existing conditions. So it would make sense that you treat somebody from the patient-centric, lifetime care model instead of sitting around and waiting until the person gets sick and shows up.

Dougherty: I agree that healthcare is going through some very transformational processes to improve quality, to improve the bottom line so that it's sustainable.

I think [this will require] HIM to transform its thinking to become patient-centered, a patient advocate, and to recognize that how we control information has got to change. Our goal must be to move information-it needs to be available quickly, securely, and it has to be accurate.

And when we do that, we empower patients. It's transformational-some core HIM processes have to change.

Washington: That's it-you'll have to do it differently than how you did it in the past.

Warner: And there's another piece. It is not just availability and accessibility, but readability. So now we'll give them their information electronically-but what does it mean? We have to create templates or apps or whatever so that when patients pull their information it's in layman's terms. They can understand it.

Dougherty: So a translator-another possible emerging role. I do think the output-designing and architecting an output that tells the story, that's useable by consumers, that's tagged for health information exchange-is going to be absolutely critical in creating useable data. Not forms, necessarily, but whatever format the information needs to be in.

Warner: Right. If it's a portal or a CD or PDF-whatever-it has to be readable.

Dougherty: Yes, useable, readable, accurate, tagged appropriately so that it's retrievable.

Warner: And available immediately.

Dougherty: Exactly. That's going to be our new mantra.

Article citation:
AHIMA. "The End of the Record As We Know It" *Journal of AHIMA* 82, no.4 (April 2011): 20-24.

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