# Standards Harmony: Establishing Common Standards is Key to the Success of the NHII



*by Donald T. Mon, PhD*

In the May issue of the *Journal of AHIMA*, I identified a number of healthcare information infrastructure, electronic health record (EHR), healthcare data exchange, and personal health record (PHR) initiatives currently under way.[1] Among them were the US national healthcare information infrastructure, the Canada Health Infoway, the Health Level 7 (HL7) EHR functional model and draft standard for trial use, Australia's *open*EHR project, the United Kingdom's General Practitioner to General Practitioner project, the American Society for Testing and Materials Committee on Health Informatics Continuity of Care Record (CCR) standard, and the Connecting for Health working group report on the PHR (see "References").

I pointed out that these projects share the following common threads:

- An information infrastructure need not be a central database of medical records.
- Electronic and personal health records are key components of an information infrastructure.
- The longitudinal health record can be implemented as a set of distributed EHRs.
- The data exchanged when patients are referred from one institution to another is a subset of that found in an EHR.
- When longitudinal health records are implemented as a set of distributed EHRs, the glue holding them together is the PHR.

## Harmonization Is the Key

Five important points must be made about these initiatives, in addition to those made in the May article. First, their very existence is evidence that the EHR and PHR are no longer just visions. While not fully mature, they are real projects that affect many peoples' lives now—either as professionals or consumers—or will do so in the near future. As these projects develop, HIM professionals must get involved to help set their direction.

Second, it is not coincidental that these initiatives have much in common. They demonstrate that there is more similarity than disparity in the way information infrastructures and health records have been conceived, even though they are taking place in different parts of the world and under various types of healthcare systems.

The third point is that a national health information infrastructure (NHII), the EHR, and the PHR are inextricably linked— a point that does not receive as much attention as it should. The nation can erect a marvelous superhighway, but it will sit idle if there is no health data from an EHR or PHR to traverse it. The converse is also true. Health information residing in an EHR or PHR will certainly be valuable within the walls of an enterprise, but the full benefits of the longitudinal record will not be realized without a national infrastructure.

The fourth point is crucial. For the entire NHII, EHR, and PHR architecture to succeed, interoperability standards must be developed. Chief among them are standards for data content and data definition. Interoperability between EHRs and the PHR or between local and regional health information infrastructures is vital. Extensive data translations when sending and receiving information over the infrastructure will result in a high degree of inefficiency. This is particularly true for the EHR if the HL7 functional model and draft standard for trial use is approved this month. It is then that the two-year clock to enhance the draft standard will begin ticking, and the data content for each function of the record, as well as standard definitions for each data element, will need to be developed.

Lastly, harmonization across these initiatives will be extremely useful in moving the NHII, the EHR, and the PHR to the next step. All of the projects are producing important insights and practical options that can be implemented now or in the near future. But certain areas among these initiatives can be greatly leveraged.

### Next Steps: Identifying the Links

Obviously, the primary benefit of the EHR is to improve the quality of healthcare at the point of care. But a secondary benefit is to facilitate the exchange of healthcare data between providers whenever a referral is made. As long as the data are being captured at the point of care through the EHR, it follows that a subset of that data could and should be extracted from the EHR and sent to the referred institution. If the continuity of care record standard has already identified, or at least suggested, the contents of the data subset, then mapping the data to the functions in the HL7 EHR model would not only save significant time and energy, but would also allow the industry to gravitate to a harmonized standard.

It may seem as though the discussions surrounding the NHII, EHR, and PHR are each happening in isolation. However, what appears to be happening is the natural first step of all large-scale initiatives—the focus on defining individual concept, scope, and functionality. Soon it will be necessary to identify the links between them and draw them into the bigger picture. What, for example, is the subset of data that is exchanged between the EHR and the PHR, as well as between EHRs? How should the national healthcare information infrastructure be built to best support the exchange of health information? Should the NHII be built as a network of EHRs that form a local healthcare information infrastructure? Or as a network of local infrastructures that form a regional healthcare information infrastructure, moving on and on until the entire NHII is built?

The various NHII, EHR, and PHR initiatives are headed in the right direction. Standards for data content and data definition, as well as harmonization across these initiatives, are the necessary next steps to gain their full benefits.

## Note

1. Mon, Donald T. "Data Synch." *Journal of AHIMA* 75, no. 5 (2004): 50–51.

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