Health Informatics on FHIR
Federal Programs: EHR Certification

Mark L Braunstein, MD
School of Interactive Computing

Georgia Institute of Technology

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In this lesson, we'll focus on EHR certification,
the first of several key programs that interlock to encourage and make
possible a wider adoption of informatics tools and systems in healthcare.
By the end of this lesson, you should be able to understand the basic approach to
defining the functional requirements of an electronic health record system
to qualify for the federal adoption program.

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You should also appreciate that these requirements
align with many of the problems we discussed earlier.

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Now this is a complicated program.
We certainly don't have time to go into much detail.
But basically, as you might imagine,
there are a list of functional requirements that EHR systems had to meet.
And there are actually tests that vendors have to go through
to show that they can do these things.
What's really important, for our purposes, is that those requirements align
well with what is felt to be needed to manage chronic disease better.
They also, importantly,
given what we now know about of quality care in the United States,
align well with measures that are felt to be key in understanding whether
quality's actually being improved and what quality of care Is being delivered.
This is done through the calculation and submission of clinical quality metrics,
which we'll talk about a bit later on, as well.

1:33

Next, vendors have to show that their systems have a number of key capabilities
that are important for care coordination.
This largely involves making healthcare data available and accessible
electronically, for exchange with other providers at transitions of care.
Something we talked about earlier.
And very interestingly,
that these systems also make that data available to the patients themselves.
This is a key development in this whole program.
The idea that patients should have access to their electronic health data.
Much more fastly than has been true in the past.
Finally, EHR certification aligns with the role of public health.
The submission of data to registries, such as cancer registries or
infectious disease registries, so that we can keep track of
patients who have problems that are of interest to public health.
And surveillance, actually monitoring the healthcare system, to see if we might
have a new outbreak of an infectious disease, or even a bio terrorism attack.
We don't have time to go in to any detail, but
to just give you a quick sense of what the testing procedures are like.
Here, the vendor has to show that their system can store these four
medical problems using the International Classification of Disease,
one of the data standards we'll talk about later.
And that they can manage the status of these problems.
Are they active?
Have they been resolved?

3:05

And keep track of the date when they were diagnosed.
For this particular requirement,
vendors actually have a choice of a second coding system, SNOMED CT.
And so we are already getting a bit of a flavor for the complexity of the U.S.
healthcare system.
We have more that one way of representing something as fundamental as diagnoses.
Whichever system the vendor uses,
whichever coding system, they still have to demonstrate the same capabilities.
Then there's a testing procedure.

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For example, they have to be able to select the patient's record and display
these problems, display the history of these problems, and so on and so forth.

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As we move on to the next program, meaningful use.
We'll see that a key component
of the glue that binds these programs together is quality reporting.
It's really beyond the scope of this course to get into a great deal of detail
about that, but there are tools and systems that have been developed.
One is illustrated here.
That allow electronic health record systems to collect, aggregate,
calculate and report on key quality metrics defined by the government.

4:16

So, you might wonder, did this program work?
Were a lot of EHR certified?

4:24

Before we get to that, let me explain, again, that the whole program is divided
into providers, eligible providers, and hospitals, eligible hospitals.
And in fact, the systems, the electronic health record systems used by providers in
their office are different than the systems used within a hospital.
That shouldn't really surprise you.
So the question is, how many certified
EHRs are there now for proprietors in their office, and for use in hospitals?

4:58

Now, you can get the answer yourself by going here.
And the purpose of that is to get you familiar with an interesting tool
operated by the Office of the National Coordinator for Health IT.
Their dashboard tool, which is continuously updated,
provides a lot of interesting information about their programs.
So, go there now and see if you can find the answer to these questions.

5:21

Now by the time you do this, the numbers may be slightly different, but
when I did it in preparing this course, there were 760 certified EHRs for
use by providers in their office and nearly 180 for use in hospitals.
Hundreds and hundreds of systems.

5:41
So what problem that I mentioned earlier do you imagine this would exacerbate?

5:47
It may be a bit early in the course to ask you this question, but
the answer is the interoperability problem.
With all of these hundreds of systems designed independently by
different vendors, how do you make them talk to each other?

6:03
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