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Introduction and Moderator

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P R O C E E D I N G S

MR. WEST: Okay. Thank you. I am Darrell West, Vice President and Director of Governance Studies at Brookings. And I'd like to welcome you to our Forum on Health 2.0: Adopting Health Information Technology in the United States.

And it certainly is an exciting time to be discussing health IT and healthcare in general because so many things are happening. We are starting a big national debate on health care reform, and this really is a once in a generation opportunity for significant change.

Now I'm personally interested in health IT not just for the sake of our country, but also because it fits very nicely with my new book, *Digital Medicine: Health Care in the Internet Era*.

See, authors have no shame when it comes to self-promotion. They're going to be copies out in the lobby for any of you interested in purchasing it.

But today, we have three distinguished leaders in the field of health IT.

Senator Sheldon Whitehouse comes from former home state of Rhode Island. Sen. Whitehouse was elected to the Senate in 2006 and already has carved out a name for himself as a national leader on health care. He is a thoughtful individual, who is an up-and-coming star in the U.S. Senate. I've heard him speak about health care, and you will be very impressed by his insights into that subject.

In the Senate, Senator Whitehouse has made health care reform the subject of his first three pieces of legislation, which include encouraging health quality reforms, building a national health IT infrastructure, and linking health-care payments to health care quality.

In Rhode Island, he founded the Rhode Island Quality Institute, which is a collaborative effort between healthcare providers, insurers and government that has pioneered efforts to expand the use of electronic prescriptions and improve the quality of care delivered in the state's intensive care units.

Our second speaker is not yet here. Her plane should be landing soon, and she'll be joining us shortly. She is Nancy Johnson, who is co-chair of the Health IT Now Coalition, and a former U.S. Representative from Connecticut.

Representative Johnson served in the House of Representatives from 1983 to 2007. She was a member of the House Ways and Means Committee, where she helped write a number of major tax and health care initiatives.

She is one of the authors of the 2006 Medicare Part D prescription drug benefit.

Currently, she is a senior policy advisor at Baker-Donaldson, a Tennessee law firm.

Our last speaker is Dr. Charles Friedman. He is the deputy national coordinator for health information technology in the Department of Health and Human Services.

In that capacity, he serves as the Chief Operating Officer of the Office of the National Coordinator.

He works to build collaborations in the public and private sectors and maintain cohesion across the programs that that office undertakes. He also is the lead for planning and communication activities, as well as initiatives related to clinical decision support.

Prior to joining the National Coordinator's Office, Dr. Friedman was the Institute Associate Director for Research Informatics and Information Technology at the National Heart, Lung, and Blood Institute of NIH.

And from '96 to 2003, Dr. Friedman was a professor and Associate Vice Chancellor for Biomedical Informatics at the University of Pittsburgh.

He has authored or co-authored over 150 scientific journal publications.

Before we hear from our panelists, I would like to make a few opening remarks about health information technology. I'd actually like to start with a national survey.

Senator Whitehouse knows that in my former life in Rhode Island, I did public opinion surveys, so this is perfectly consistent with my past.

How many of you have a primary care doctor who stores health information on electronic medical records? Raise your hand.

Okay. We have roughly about one third of the audience who raised their hand. That makes this crowd a Lake Woebegone crowd, because you are above average on this particular dimension.

Nationally, about 18 percent of Americans have electronic medical records. In hospitals, the numbers are even worse. There was a recent study that claimed only nine percent of American hospitals rely on electronic medical records.

Now compare this to other countries. In the United Kingdom, 59 percent of health providers use electronic medical records. In New Zealand, 80 percent do.

When I travel around the world giving talks, I find a number of other countries are ahead of us in terms of technology in general. In Taiwan, Singapore, South Korea, for example, they have electronic medical records, fast broadband, and smart cards that guarantee privacy on financial transactions.

Now the only problem I had with Korean healthcare when I was in South Korea concerns the way that they measure pain. I flew to Seoul to couple of years ago and almost immediately developed a kidney stone.

So, of course, I go to a Korean hospital. The nurse asked me where it hurt. I pointed to my back. She asked me to turn around, and before I knew it, she punched me really hard in the kidney, at which point, I screamed. And she said, wow, your kidney stone must really hurt. And I said, yeah.

I actually decided at that point I preferred the American method of asking for a self appraisal of pain on a one to 10 scale.

And then before I moved to D.C. last year, I went to my Rhode Island doctor for an annual checkup. And I was pleased to discover she had just implemented electronic medical records. So, she took down my vital signs and entered it into her laptop computer.

And I congratulated her on the progress that she was making, and then I asked her about my last 26 years of medical records that sat on paper in her filing cabinet. And she laughed and said, hey, we're not entering that information. That would take way too much time and money.

And I think that experience shows both the opportunities as well as the pitfalls at this pivotal moment.

There are a number of important issues related to health information technology in terms of how the money is going to be spent, what kinds of digital systems we will and should be supporting, how will particular technologies get certified, and what constitutes meaningful use on the part of hospitals and doctors.

And, of course, there are complications at each level in terms of interoperability, the ability of various computing systems to talk to one another. We have let a thousand flowers bloom in the United States in the area of health information technology. There are many different proprietary systems. There are starting to be open source systems.

We have online systems through Google and Microsoft. And the problem is it's been hard in the system with so many different software systems out there to get the computers to talk to one another.

When you move to a different company or another state, your EMR often is not portable. So, obviously, we need to implement health IT in ways that will connect existing systems and guarantee that they are able to talk to one another.

One of the big problems in the health IT area has been the question of who owns the data. Is it doctors, hospitals, or patients?

When I moved to D.C., of course, I wanted to bring my paper medical records with me, so I have the primary care physician. I have specialists. I had an optometrist. Each had a different policy on access.

My primary care physician was the best. She just simply mailed them to me—no big problem.

My urologist gave me my records, but then charged me a $25 handling fee. But then my optometrist refused to give me my records, as saying that after I moved to D.C. and got a new doctor, that optometrist could request my records and she would send it to that person.

And the issue is 10 percent of Americans move in any given year; even more switch jobs from time to time.

So whether you are a part of proprietary or in open source system, patients need ways to control their medical records when they change jobs or move.

And it really doesn't matter what kind of system is; we really need portability on those computing systems.

We need to integrate the different types of technologies that we are seeing in the healthcare area: not just electronic medical records, but billing systems, administrative systems, e-prescribing, physician orders and so on.

I think some of the big questions that I hope we can address today are will the recovery legislation actually achieve the desired results. Obviously, we are at a historic moment, because Congress and the President already have approved the expenditure of $19 billion on health information technology. It's an amazing step on which we are about to embark.

The goal is to boost the use of electronic medical records from the current percentage of under 20 percent to 90 percent by 2015. So that’s only six years away.

That is an ambitious goal. If you compare it to the usage of other digital services, you can see exactly how ambitious that is.

For example, online tax filing, roughly today about 65 percent of Americans use that. Online banking, about 20 percent of Americans do that. Downloading music, only 12 percent do that.

So that goal of 90 percent certainly sets the bar very high and sets the bar even higher than competing nations, such as the U.K. and New Zealand already have achieved.

Will there be quality improvements? I'm very optimistic on this front. We all understand the problem of faulty records--the patient deaths and illnesses that will result from medical errors each year; the mistakes in prescriptions. So I think HIT offers the potential to really make great progress on that front.

The $64,000 question, though, of course, is the cost savings, because, in order to do some of the ambitious things that we would like to do in the healthcare area, such as moving towards universal health care, we need to be able to save money.

And everybody, regardless of whether they are Republican or Democrat, believes technology is going to save money.

There have been some estimates go as high as $120 billion a year in cost savings through the use of this technology. Personally, I think that is a bit optimistic. In political science, there is the rule of unanticipated consequences; that whenever you undertake a reform, there are going to be things that happen that surprise us, because people are [inaudible] creative in how they respond to these types of things.

And I certainly think there are ways to achieve economies of scale and greater efficiency arising from health information technology. But I was talking with some positions, and they were very optimistic about how they are going to be able to use health information technology as a way to raise revenue as opposed to lowering costs.

Now I was a little puzzled by this when I first heard it, so, of course, I asked for an explanation; and they explained the process of

position upcoding, where, you know, when doctors are seeking reimbursement that the problem with paper records is it's hard for physicians to be able to do a lot of upcoding because often times they don't have sufficient documentation to be able to explain and justify what they're doing.

But this one physician explained to me that through health information technology, his record-keeping was much better. The use of technology allowed him to actually upcode in a much more systematic way. And he estimated that he was able to raise his revenue by more than seven percent a year through technology because of this upcoding practice.

So I think, as we start to implement health information technology, there's going to be all sorts of interesting positive and perhaps some not so positive responses to that. And whether we actually are able to achieve that $120 billion a year in cost savings I think is still an open question.

But I think the key here is really not technology as a solution in and of itself, but using technology to reform organizations, change cultures, and tied reimbursement rates so that we award could behavior.

Right now, there unfortunately are some bad incentives throughout the medical system. We need to build in new incentives to get the system to start to move more in the direction that we would like.

So in the long run, I am a technology optimist. I do think technology is absolutely vital to cost savings and quality improvements. I

think eventually we will get to the point where the visionaries are correct. But they're going to be many obstacles along the way, and that's one of the reasons we wanted to put this panel together, because we have three outstanding individuals who are very knowledgeable about health information technology.

So the format that I have asked our panel to follow is I've asked each of them to speak for up to 10 minutes, outlining their perspective on health information technology and what they see happening and what they would like to see happen. And then we will open the floor to questions and comments from you.

So we'll start with Senator Whitehouse, then hear from Representative Johnson, and then close with Dr. Friedman. Senator Whitehouse?

SENATOR WHITEHOUSE: Thank you, Darrell.

Against all the traditions of the Senate, I'm going to try to get done in less than 10 minutes so we can go on to question and answer. But, first, let me congratulate you on your shameless plug for "Digital Medicine," by Darrell West. "Digital Medicine," is that what it's called?

MR. WEST: Definitely.

SENATOR WHITEHOUSE: Digital Medicine.

MR. WEST: Digital Medicine.

SENATOR WHITEHOUSE: I just wanted to make sure.

And I want to reject one thing that you said, which is that you are a former Rhode Islander. Rhode Island is a very small state. We don't accept former Rhode Islanders.

Once a Rhode Islander, always a Rhode Islander.

So we claim you still, and as far as your observation that I'm an upcoming star in the Senate. For those of you who are new to Washington, that is Washington code for new Senator.

This discussion, I think, hinges on an observation that the Economist magazine made a couple of years ago, which was that the information infrastructure in the American healthcare industry is worse than in any other American industry except one. And that one was the mining industry.

So we have a long way to go if the Economist is correct, everybody who's looked at it seems to believe they are.

There are a lot of barriers to developing health information technology.

The first and worst has been the funding, because there is a market failure around health information technology in which the person who has to do most of the investing doesn't get a proportionate share of the reward of the investment and so the risk-reward calculation that's sort of the fundamental market promise of American capitalism doesn't apply.

The doctor does the investment. The insurance company gets the benefit. And the doctor hates the insurance company. It's not a good combination.

Thankfully, President Obama's $20 billion has taken a big step to cure that problem, and that moves us, I think, to second order problems of interoperability and its related problem of too much proprietariness and then the process by which we have been moving, which I think as then rather slow.

As to interoperability, Rhode Island is just south of Massachusetts. Up in Massachusetts, we have doctors who are using the same companies, EHRs, in the same state, and they still can't talk to each other.

So the interoperability issue is very, very considerable and needs to be resolved. I think that [inaudible]--I want to recognize Dr. Friedman here as doing a good job at pushing it along.

I think they've had to operate by consensus for long time, and I think it's time for a little bit more stick in the process. The new legislation allows them to work through the Administrative Procedures Act rulemaking process and force some issues and build a real legal foundation for this.

So I think that was a good turning point, although there are some delays of the APA that are built in. But having health information technology, if you are a doctor on your desk, is sort of like having a car in your garage.

You can go out, and you can turn on the radio. You can run the air conditioning and stay cool in the summer. If you still got a lighter in

it, you can light a cigarette off it. But unless you've got the network out there to run around on, it's not a full-utility vehicle.

It's the roads that make the car valuable.

And we have not really carefully defined what the roads are. It raises a fascinating question that is useful in a lot of different areas of what is infrastructure in a new complex and digital world. We've always known what infrastructure wise, because it looked like stuff that the Romans could build. It was bridges. It was roads. It was waterworks.

Now that you have a digital, cyberworld how do you define infrastructure in that? And that's an important question that we will have to answer.

The benefits I think of this are immense. I'm more bullish than probably anybody. I think the Rand number, the high Rand number of $357 billion a year is actually probably low if we get it right, because if you look at the whole system, and you just took the U.S. spending on healthcare, and dialed it down to the midpoint between the European Union average and the worst most expensive other country in the world, if we could do no better than get to that midpoint between the average and the worst, between the average and the worst, we save probably about a trillion dollars a year.

So it's a—there's a lot of gain to be had out there if we can get this done. The benefits are numerous--obviously, efficiency gains. We've seen that wherever information technology has been deployed; error prevention--a very significant potential for savings there; information

aggregation and cross-checking--make sure you're not taking two drugs that don't mix with each other, for instance, also very important.

Ultimately, one hopes to get to pretty solid decision support. I gather Nancy flew in this morning. I flew in this morning. We came in through thick clouds, but the pilot of that aircraft had no problem coming down through the clouds. He was in a vector path coming down. If he didn't get the wheels down time, alarms would have gone off. If he got outside of the vector path, alarms would have gone off. If he got too slow, alarms would have gone off.

He or she was just completely saturated in decision support in a way that modern doctors simply don't have. And, as we can build that out, I think that would be very, very important.

For individuals, the benefits will be very real--much more efficiency--not having to drive into the doctor for a 15-minute interview if you can get it solved electronically over your e-mail; ability to communicate with your healthcare provider and get information about your illness, and, frankly, ultimately having your own private electronic health record that goes with you wherever you go. It's just a huge asset in your life if we can get that up and running.

The final point that I'll make is this: We have to go at this with a sense, I think, of very grave urgency. We have to view ourselves as like RAF pilots and the radar has just lit up that Luftwaffe are coming at us, and have got to scramble to get into the air as fast as we can, because

the system is headed for a terrible calamity if we don't. We simply have set zero dollars aside to pay for a $35 trillion liability for Medicare.

That's just the Medicare slice of this tsunami. There's also a Medicaid. And there's veterans benefits, and there's federal employee health benefits. And there's private pay.

The healthcare tsunami that is coming at us is something we should all be greatly concerned about, because it fundamentally threatens the fiscal survival of our country, and we have to get ahead of it.

We have only two choices ultimately. We have the choice between getting ahead of it, with quality investment, with prevention investment, with payment reform, all of which has to stand to be effective on an information technology base.

It's the key necessary, but not sufficient, element of that reform toolbox. Or we can go to the other toolbox, which we use all the time. It's a bloody, nasty toolbox, and if we wait too long, we'll have no choice but to use it.

But given the fiscal peril that we're in, it will be an imperative to go to it if we haven't got it solved the right way.

The bloody toolbox contains throwing people off health insurance, which is pretty horrific considering we already have 47 million uninsured in this country. We could then out the benefits more, but it's already the number one reason families go into bankruptcy--so insured or not. So thinning out benefits doesn't seem like a very productive or beneficial idea.

We could pay providers less, but they're already evacuating federal healthcare or having to cross-subsidize to support it. So there's very limited room to maneuver there.

Or finally, we could charge our businesses more for the privilege of supporting this incredibly wasteful and expensive and unsuccessful healthcare system.

But we already compete unsuccessfully in the world because of it. We already put a Ford out the door with $2,300 worth of healthcare in it that has to compete with a Volvo that operates in a national healthcare system or a Peugeot or a Lexus or whatever. We are burdening our own competitiveness with this, so the ability to raise taxes much is also very limited. So it is an ugly set of tools that we will have to work with.

But it's probably only 10 years out before we'll be doing that, and it probably takes about 10 years to get this high-end performing system up and operating the way it should, which means that the time to start is at least now, and by most standards probably actually 10 years ago; hence, the urgency that we need to feel.

It is scramble time. We've got to get in the air on this, and we've got to do it fast.

And I am eight minutes, not 10. So score one for the Senate.

MR. WEST: Thank you, Senator.

Our next speaker is Representative Nancy Johnson. She is

co-chair of the Health IT Now Coalition and a former U.S. Representative from Connecticut.

MS. JOHNSON: I'm as bullish as the senator, and if do it right. And I think we're at a crucial point. It's very hard for the Congress to make healthcare policy that is truly focused on serving the future. And, indeed, the health information technology bill that passed was deeply based on our current experience, that is, trying to encourage personal--individual health records in the doctor's office and fostering the growth of REOs.

Now having had that vision myself and having helped to found a REO in Connecticut which is doing some useful work, I absolutely agree with the National Research Council report that came out in January that that won't work.

So I won't go into why, but we do have to move to the next step, which is forcing the development of interoperable technology.

Now the Congress got the bill absolutely right, fundamentally. First of all, it does talk about individual records and it does talk about being able to accept and respond to information from outside your own domain.

And the real issue now is whether or not the administration will have the urge to write the meaningful use regulations in a way that will move us forward. Too many people--and remember I'm on the outside now and I hear all these calls—oh, yeah, you'll conform.

You've already invested. You'll be all right. No, you won't be all right. Not anyone with any technology now should be--should qualify for the meaningful use definition, because as good as they are, at their very best, they're intraoperable within their own hospital, inner mountain, geysering, Kaiser—but they're not interoperable between my office and yours.

And that in the end is what we need.

So if the meaningful use definition says if from where you are, you take a step toward interoperability, we will press the big companies like Cerner [ph.] and GE and Siemens and the others to focus on interoperability.

If we don't do that, they will continue to focus on developing--which is important and nice; they've developed some wonderful systems that have improved safety, improved efficiency within the hospital, you know, within an institution. But if we don't push forward on the system wide interoperability, we cannot get from where we are now to where we must go.

And I agree with Senator Whitehouse completely that the other toolbox is lethal. We've seen it work in Medicaid nationally. It is working in Medicare. Don't kid yourself. And Medicare used to be the best payer. In some states, it's now the worst payer. In some it's a modest—a neutral pair. And in some, it's still the best.

So don't think those tools don't operate quietly, subtly, and self-fully, but gleefully in terms of the development of a quality healthcare system and one that can serve everyone.

I don't think we have 10 years, so I'm really intent on this sense of urgency, and that's why I think the meaningful use definitions are going to be critical.

But there is another thing that—two other things that will be critical. First of all, we've concentrated a light on these health records being in the doctor's office.

In the end, for all the reasons the senator laid out, that's nice, but that isn't crucial. And that's not going to drive the culture change that we need, and it's not going to drive the cost savings that we need.

If it's patient-centered, then you will see a whole new dynamic take place. And I would--I base this on my experience of some of the technologies now that our young, but totally patient-centered.

There's one that's been piloted in Ohio for two years now and what was interesting about it was that--it was voluntary. The people who chose it were the people with multiple chronic illnesses.

And guess what? They visited it not once, but regularly. And the costs of the insurer and the employer went up for doctor visits and prescriptions and preventive care and down for hospitalizations and emergency rooms, which is exactly what we're hoping for see, because when they looked at their record—and this is absolutely the key; it's unlike

what happens in any other—remember Well Point gave its 25 million people an individual health record, and they had about two percent usage.

But it's because this record, the individual record, is the same record the doctor is seeing. And if you go to the doctor and he gives you instructions and you can't quite remember what they are, you can go look at your own record when you get home.

So compliance, the red light-green light mechanism--all those different things that we know how to use to motivate compliance really worked.

The other thing that was very interesting about it was, if you had seven doctors and it all showed on their records that you hadn't had a mammogram, if you had a mammogram then it changed on all those records. Most of the systems, even the most sophisticated ones that are out there, it would change on your doctor's record, but you'd still have six doctors telling you you hadn't had your mammogram, because it isn't interoperable.

It must be interoperable, but it must be patient-centered. And I'll tell you why it has to be patient-centered or we will fail.

Rising costs of healthcare are not about price. They are about product.

The choices for diagnosing and treating disease had been exploded in the last few years. And we have no means to tell, neither does the doctor, and particularly in our liability environment there's not

even any motivation--and you would have to have courage to sort of say, well, you need a CAT scan, but you don't need an MRI.

So any patient who wants both a CAT scan and an MRI gets it.

So you have to--the product shelves are full, and we can no longer afford a system in which the consumer just says I want this, this, and this, an I'll--you know, my insurance company will pay the 20 percent.

So you have to—since the underlying challenge--in the end, we don't like to talk about this, but we are the only nation in the world and this is the primary reason the figures show is that it's so much more expensive is we have a medical model of deep and persistent intervention toward the end-of-life and toward the beginning of life.

Do you know when we look in our mortality statistics--infant mortality--we are the only nation in the world that if an infant takes one breath after delivery, it's counted a live birth. There are countries in the world that don't count it a live birth until they've been alive a year.

There are—most countries don't count it live. I don't think anyone can sit live--in fact, I'm sure they don't the way we do.

So if an infant lives a few hours or a few days that—and was very troubled from the beginning, they're not counted a live birth.

But we're letting our infant mortality and these terrible statistics that make us look like such a terrible system drive the debate.

When really, we have two choices. We let the government regulate what's available to us in our last six months of life, which is

another one of the tools in the senator's toolbox--

SENATOR WHITEHOUSE: It's not my toolbox.

MS. JOHNSON: --if we have a national board—no, but I mean, you know, in the public-policy toolbox and the same with infant care. We save very, very difficult infants. We make a huge investment. Some of them last a month. Some of the last two or three months. And some of them have very costly and very limited lives.

So there are moral judgments that are going to have to be made here if we're going to have a system that covers everyone. That's affordable to everyone. And that delivers the quality care medical science makes possible.

So I guess my message to you is we have to be sure that the meaningful use definitions press technology to develop interoperable and patient-available systems, because in those small areas where that is happening, they are proving themselves.

This one in Ohio, both the employer and the insurer saved so much more the first year in duplicate tests and sort of nonsense stuff, much more than they anticipated. So they were able to not charge the physicians at all. And they can deliver this, if they need to charge it, for several thousand dollars initially and a very small maintenance fee, because it's a different model.

So technology development in the next two years is going to be tremendous.

I just came back from a venture capital gathering in California last week, and they just want to know, you know, what are the standards going to be and then they'll get in there and do it.

Now the big Certas and those people they can do some of that, but they can also buy up the good ideas that will get them there in a hurry.

So we have to recognize that—how important it is that we press ourselves to move into the new world that will put the patient squarely on the care team and allow the development of care teams that are not just the physician--because if you don't get away from that model, you don't have the coordination. You don't have the patient support that we know is necessary to reducing the cost of chronic illness or of even managing a child with chronic illness.

So to get away from that, we have to have something that enlivens and reimburses team care and involves the patient is part of that team as a very center of that ecosystem, because in the end, prevention is not about government policy or even what your insurance policy covers. It is about whether you do it or not.

Then my second—the second point I would make—let's see—I had forgotten how much—no, just briefly--is there are a lot of government policies that have to change.

If you get people to adopt electronic health records in their office, and we can't change the policy so Medicare can populate that record with claims data as a place to start, they can't possibly do it, if 80

percent of your patients are in Medicare, you don't have time to enter the data about [inaudible] their illnesses.

There's four or five different policies in the public arena that have to change in order to make this happen, and so far stripping out old law has not been on the agenda.

I'm sure my time must be up.

MR. WEST: Okay. Thank you, Representative Johnson.

Our last speaker is Dr. Charles Friedman of the Office of National Coordinator.

DR. FRIEDMAN: Thank you very much. I'm truly delighted to be here today and to have the opportunity to participate in this panel. I bring you all greetings from Dr. David Blumenthal, our new National Coordinator, for whom today is day 11 on the job.

We're all very fortunate to be able to draw on David's distinguished background, which combines health policy, clinical practice, and health IT.

Having given several presentations since the passage of the Recovery Act, I've actually been searching for the right simile or is it a metaphor—I'm never sure--to describe the challenge of saying something helpful to you all while not getting out ahead of what has actually been decided. And a few days ago, the simile or metaphor struck me.

It's quite like trying to put together the preview of the film when the film itself is still in the cutting room. And no one knows exactly what the final version will look like.

The challenge of giving an effective preview is heightened as the new film is highly anticipated and signals a new era as is the case with health IT right now.

In my preferred marks today, I'd like to preview the health IT aspects of the Recovery Act, but first I'd like to observations. And this goes to some things that Senator Whitehouse and Representative Johnson said about the health IT resources that were in place prior to February of this year and that, in my opinion, lay an important foundation for the developments about to occur.

And I'll highlight three such resources: first, the health IT strategic plan—prop one; second, the processes for establishing standards that enable data interoperability and exchange; and third, the nationwide health information network as a secure mechanism for health information mobility.

The health IT strategic plan, as many of you probably know was released by ONC in June of 2008. It embodies a principle that remains paramount, that the widespread implementation and use of health IT is a means to an end and not an end in itself. The purpose toward which we continue to strive always has been and will remain the improvement of Americans' health.

To this end, the strategic plan offers two goals, one relating to the transformation of healthcare to be patient-focused and to increase quality, efficiency, and safety.

The second goal relates to population health activities, which that plan defined to include public health services, surveillance, biomedical research, quality improvement, and emergency preparedness.

It is very important as the current H1N1 influenza outbreak reminds us not to lose sight of how information technology can empower all population health activities as well as activities related to the direct provision of health care.

The strategic plan is cited many times in the Recovery Act, and I think it's fair to say--my colleagues on the panel can correct me--that the Congress believed in writing the act that this plan was on the right track.

The plan will, over the coming months, be updated and revised, but we do not anticipate that it will be completely rewritten. The full plan is on our website, healthit.hhs.gov. And I have brought a few copies of the synopsis with me today, and they are outside at the registration table, if you would like a copy.

Turning to standards, I would actually like to begin by offering a simple definition of that elusive term interoperability. This is the professor in me. I can't resist.

It is the ability to send messages from one place to another such that the sender and receiver will assign the same meaning to the content of the message.

Interoperability may be easy to define, but it is much harder to achieve. Standards that define the structure of messages, how to

represent their content, and the means of transmitting them are the building blocks of interoperability.

In recognition of this, the Department of Health and Human Services, supported by numerous stakeholders in the public and private sectors, established a process to identify nationally recognized health information standards.

Starting in 2006, work on a new set of standards began annually. The first set of recognized standards was published in January of 2008 and a second set earlier this year.

This existing standards process has its supporters and detractors. And we at ONC recognize that it is not a perfect process.

But the bottom line is that we believe we have many “good enough standards now” and more in the pipeline to use as a starting point in the journey toward nationwide interoperability.

A third key component of our work, predating the Recovery Act, is the Nationwide Health Information Network or NHIN or N-HIN or NE-HIN, depending on which definition or acronym you choose to use.

Underlying the NHIN is a simple principle that exchanging health information requires agreement to play by the same set of rules. The essence of the NHIN is that minimum set of rules, expressed both technical specifications and social-legal agreements, by which all must abide.

The NHIN should also be understood as a network of networks. This means that individual care practice and population health

sites will not connect to the NHIN directly, but rather will connect to various kinds of health information organizations that will, in turn, connect to one another via the NHIN.

The paramount principles guiding the design of the NHIN are information security and an individual's right to choose whether information about him or her can move across the network.

I would emphasize that the NHIN has no central database.

Work on the NHIN began in 2005, and successful trial implementations were held late in 2008. Plans are in place to take the NHIN into limited production later this year.

Now having reviewed three key aspects of recent health IT history, let me blend this past with the present and the future.

The health IT provisions of the Recovery Act may, as noted in the statute, be referenced as the High Tech Act.

They introduce the important additional concept, as you have heard already, a meaningful use of health IT. Consistent with our strategic plan, but putting a finer edge on the point, meaningful use oriented our focus toward healthcare providers, population health professions, and healthcare consumers actually employ the technology to move the nation toward a higher performing health system in better health.

Just having the technology isn’t enough. Meaningful use reminds us that this is primarily about people, not bits and bytes of hardware and software.

The demonstrated meaningful use of health IT is what will make a clinician or hospital eligible for payment incentives beginning in 2011 through Medicare and Medicaid.

To earn incentives, the law requires that providers meaningful use “certified electronic health record technology,” and that to be certified, and EHR must include key features, such as provider order entry and clinical decision support.

These features are key because they have been shown to improve quality of care, as seen most clearly in the Veterans Administration experience and prevent adverse events as shown in numerous controlled studies that have appeared in the literature.

Meaningful use also statutorily requires information exchange and quality measures reporting, which, in turn, requires standards and interoperability.

To this end, High Tech calls for adoption of an initial set of standards by the end of this calendar year for which the existing federally recognized standards form a basis, as was also recognized in the text of the act.

Nationwide meaningful use will eventually require the ability to move information securely from an authorized sender to an authorized receiver anywhere in the country, requiring the capability that is envisioned by and beginning to be built into the nationwide health information network.

An initial definition of the criteria for meaningful use is essential to the implementation of High Tech, as you have already heard, and will be forthcoming.

An important first step in this direction was taken just this past week when the National Committee for Vital and Health Statistics, the NCVHS, held public hearings on meaningful use for two days.

These hearings focused both on an initial definition of meaningful use of their flight path--there is another aviation metaphor--whereby gradually escalating criteria could move the nation toward greater levels of benefit from health IT.

A summary of the 39 panelists' testimony will be available in about three weeks on the Committee's website.

Finally, I would call your attention to several grant programs in the High Tech Act that will promote widespread successful adoption of health IT as a basis for its meaningful use.

The Act mandates that the Secretary of Health and Human Services establishes programs, though the precise details of their administration—of their implementation are left to her discretion.

The first of these that I would mention is an extension program that will include a national research center and regional extension centers to provide direct assistance to practice sites for the limitation and effective use of health IT.

The High Tech Act mandates that we publish a draft plan describing the extension program, including procedures for grant

applicants, total amount of support available, and other key details by May 18th.

We are working to have this draft ready by this deadline.

The second grant program is a program of grants to states "to facilitate and expand" the electronic movement and use of health information among organizations according to nationally recognized standards.

These grants can support a range of applications, including the development of health information organizations of the type that will be the major connection points to the NHIN.

The third grant program addresses the need for an enhanced health IT workforce, in part to staff the extension programs' regional centers, but also to work in hospitals and clinicians offices, in population health agencies, in university and other research centers and for software vendors.

Many believe that the shortage of qualified personnel to work on site with providers to support the clinical workflow and other significant changes is the key factor limiting the rate at which we can realistically move to widespread meaningful use of health IT.

We are planning these grant programs not only to be successful in and of themselves, but also to work in harmony so that each benefits from the presence of the others and the net effect for the nation is synergistic.

So details of all three of these programs will be forthcoming soon. I've also brought with me this beautiful, laminated bookmark, perfect for all occasions, which lists the websites from which future information will be available. And there are multiple copies of the bookmark on the table outside.

So I believe this may be a fitting conclusion to my preview of coming attractions, and I look forward to your questions and comments. Thank you very much.

MR. WEST: Thank you, Dr. Friedman.

MS. JOHNSON: Thank you very much.

MR. WEST: I have one question for each of the panelists, and then we're going to open the floor to questions and comments from you.

Senator Whitehouse, you had this very interesting phrase that you think it's time for the administration to use more stick.

So the questions are, how much stick and in what form do you think this stick should take?

SENATOR WHITEHOUSE: I think that there is probably no single greater issue of more national urgency in getting this right and getting it done yesterday. So, frankly, I hope that essentially every lawful method, presumably mostly under the Administrative Procedures Act, because that allows you to lock in and have the force and effective law once the regulation is in place and move forward is utilized.

A lot of it is simply going to be energy and leadership. And I have to say I cheer the appointment of David Blumenthal. I think he's wonderful, and I look forward to finally having an HHS secretary in place and I welcome Governor Sibelius. I know that Peter Orszag is driving very hard on this from OMB and that Zeke Emmanuel and Nancy [inaudible] are very energized team in the White House.

So we have very good players and very good places to drive this. But now we have to see it happening, because, as I said, the deadline, I think, is very short. We actually may already be past the highway exit and have some catching up to do. But the choices that we will have to make in this country if we don't get it right are horrifying ones, and I think we have to make it a matter of supreme urgency that we get this done.

I think we also have to recognize that on a lot of this, we're a little bit like the folks in the Wright Brothers' bicycle shop to keep the aviation analogies going.

We don't know exactly how a lot of this stuff is going to work. We know what the principles are. We know that you can bend a wing surface, and it'll lift. You know you can turn an air [inaudible], and it will pull. You know you can twist it, and it'll affect the velocity and direction of the vehicle.

But we're pretty primitive on a lot of this, considering where we could be and where we need to be. The difference between where we are and the Wright Brothers' bicycle shop and 747s, you know, stacked up

over Dulles Airport coming in with people sipping tea in air-conditioned comfort as they land is the kind of leap that we need to make with electronic health records, decision support, and information technology.

And it's just ridiculous where we are right now. We still sit with a piece of paper and a clip pad and fill out our information for the umpteenth time while Amazon welcomes us, tells us what we last bought, and recommends the next things we might like, side by side.

You know, try a fast food restaurant and its supply chain and IT support and compare that to your doctor's office. It's just--we are at a preposterous level of health information infrastructure primitiveness.

We know what the principles are. We have to try a lot of things to figure out how they work and to avoid, as Darrell pointed out, unintended consequences.

But I honestly don't think there's anything that's more important. I really am gravely concerned about the decisions that people in my position are going to be making five, eight, 10, 12, 15--I'm not exactly clear when that wave hits and when it precipitates, you know, real fiscal concerns from the Chinese or others about our ability to repay our debt and all that so that we have to take immediate action.

There's a lot riding on this.

MR. WEST: Thank you. Representative Johnson, you and others have talked a lot about patient-centered records and some people have even gone so far as to suggest that we need to start tying reimbursement rates to health outcomes, either objectively defined, or

some people basically suggests that when patients visit doctors or go to a hospital, they should rate the doctors and hospitals and then those rating should go into reimbursement rates.

But then on the other hand, people also suggest that in order to really use technology to cut costs at some point doctors have to be brave enough to tell the patient you do not need an MRI.

And one of the concerns I have in this area is there's a lot of tension between those goals. For example, in academia, when we move to course evaluations where the students rated professors, we ended up with grade inflation, because professors knew they were being rated by students, and, so, therefore, one easy way to get good evaluations was to give high grades.

Is there some tension between this goal of patient-centered records on the one hand, which might involve patients rating the doctor and the doctor basically at some point having to say, you know, you don't need this prescription or you don't need this MRI?

MS. JOHNSON: Absolutely. Absolutely. But I don't think it's between patient-centered electronic health records and rating doctors. I think it's good to be profoundly about how we judge quality, because really the future, the goal of everything we're doing is to try to deliver a high quality healthcare capability to individual people.

And remember, with genetic testing and things like that,, this issue of health care is going to be more and more individualized. So if we don't set in place a system that deals directly with the individual, we will

not prepare ourselves for the future, but that very individualization means that sometimes your treatment will look like someone else's, and a lot--most of the time, it won't.

And how we measure quality is going to be key, because we had these rules now about people on Medicare. They can't stay in a rehab facility or a nursing home any longer than they're making progress. Wow, you know, when you're older, just being even is making progress; declining more slowly is making progress.

And this kind of measurement issue and accountability issue is going to be very key to our ability to preserve the right and the capability to deliver the appropriate care to the appropriate person.

So that's why individual health records are very important, because through them, people will experience the benefits of a care routine. You get diabetes, as my niece just in her late 30s, and she's going to see what works now--what works when she's 47, what works when she's 57.

And by the time she's 67, she will have been through a whole lifelong education of what works. And as she gets older, she will see things working less well, because it's almost inevitable that she'll have multiple co-morbidities.

So, you know, I just had a friend of mine elect to say this is enough, you know, I can't stand this anymore. And all the medications were stopped.

Now this guy was 89, but, you know, we need to understand our own processes of health and wellness. And through the individual record, through a well delivered care coordination, care management, care support system, people themselves will ask for different options toward the end of life.

There's a community in New Hampshire that lives this way now, and they want different information from the medical system and a lot of it is based on experience with other patients, you know, but also their experience over time of what works.

So if you're ever going to control long, you know, those last six months of life costs and nobody, of course, knows when the last six months of life is, you have to do it from a patient-centered position. Otherwise, it will backfire on you.

I mean, what happened with managed care? They got too absorbed in negotiating prices, and they forgot about managing care.

And that's why the technology really has to focus on the individual. But we should never—I mean, not only are we way behind where we need to be in terms of what kind of technology and what it can do, but we are way behind where we need to be in measuring quality.

And if you read the Institute of Medicine's briefing they put out—I think it was January or March—it shows the flimsy foundation behind most protocols--some of them—most--many of them not even a literature review.

So this issue of how we measure in health is a keen—is extremely important, because while I don't think we could afford to outcomes payments--you know, bundling is going to encourage teams, and eventually if that team's patients all do badly, you know, it is going to matter.

And we are going to think we need to hold them accountable for better performance.

So it's just important to remember that we don't know exactly how we're going to get there, but we need—we are headed in the direction and the goals we have a the right ones.

One last word: We absolutely have to keep wide open the opportunity for entrepreneurial technologies, because they are developing all kinds of things and, by that same token, to sock in the word a plan--a plan structured as the past plan, though the past plans have failed us, frankly--the structure of the employer insured plan or any other plan has failed us.

We need plans that reward you for—that help you when you need a chronic medication that you can't afford and that who warned you for sticking by the discipline.

And those plans are out there.

We need—one of the things I saw in California was the incredible ingenuity growing around the issue of keeping a lot of care out from under the insurance model.

You don’t have to do all that building. You don't have to track all that stuff. And so kind of boutique care for the ordinary working person, coupled with a high deductible, being much cheaper.

So we have to really be careful not to have our experience of the past structure the future, because it's going to be so different as it becomes patient-centered and capable of mobilizing a much bigger team. It isn't just the doctor in his office. It's the doctor wherever you have to go for care being part of the electronic system of what care you’ve received, how it works, what medications you are on, and things like that.

So I think recognizing that as much as anything, it’s going to be entrepreneurial invention that’s going to help us find our way to a system of greater accountability by provider and by patient.

And then, of course, there are all those laws that we need to change to make this possible.

MR. WEST: Thank you. My last question is for Dr. Friedman, and then we will open the floor to questions and comments from you.

Probably the two words you mentioned which strike fear—more fear into the hearts of more people than anything else is those words meaningful use.

An I know we have a lot of people here from various private companies, advocacy organizations and so on that are curious how this concept is going to unfold.

And I know you're not in a position to answer that question because the administration has not yet come up with an answer, but could you just talk a little bit about the process by which that decision is going to be made. I mean, we had the public hearings that have taken place. You said in three weeks we will have the summaries of those.

What happens between that point and actually making a decision?

DR. FRIEDMAN: Well, that's in the cutting room. Unfortunately, what I can tell you is that--what I can tell you is not a lot that is specific. I can tell you that we are truly in information gathering mode now. The hearings that we had through the NCVHS were enormously helpful.

I'll be very interested in hearing what people have to say today.

The High Tech Act stipulates that the Secretary of HHS will put forward the definition of meaningful use. We have, I think, generated, as I said in my remarks, some constructs that are going to be helpful to guide the definition. We're obviously very mindful of, as I believe Representative Johnson said, the need to place this definition at a level that brings about a kind of use that realizes the goals of improved quality and efficiency and safety in healthcare.

So the concept of a flight path that the level, wherever it is set at the beginning, can achieve greater altitude over time is another construct we are using.

Beyond that, the process will be one of getting the best advice we can get from as many people from whom we can get it, synthesizing the advice using those general constructs that we have developed, and then advising the Secretary so the best possible definition can come forward in the interest of meeting the aims of the Act and of the health of the nation.

MR. WEST: Okay. Thank you. That's a good segue to getting advice from the audience. So if you could raise your hand, and when you ask your question, if you could give your name and the organization you're representing. Right back there.

MR. MCNAMARA: My name's Tim McNamara. I represent a healthcare technology solutions provider. I built the first model of a medical school in 1970-71. It's pretty crude batch processing.

And I've been on [inaudible] history panel now for three years, and so I'm a bit of a protégé of his and fan of his.

The interoperability issue is solved. The interoperability issue is solved. What you have in medicine is you have semantic standards, which are the words, and getting those right. You could take what you have today, freeze it, and get one computer standard for all of them.

That standard, which solves the extension problem in XML is XBRL, which the SEC has adopted. The U.S. lags the world by five years. But it was built in the private sector--no government involvement--no government support by anyone, because they had an interoperability

problem when XML came out in ’98 which is a great conceptual breakthrough to put metadata on HTML documents.

Put that and it gave you interoperability. It gave you remote viewing, just like DoD and VA have today. Remote viewing is not interoperability. That’s their—at the [inaudible] Convention that’s what they said. I mean, they recognize it, too.

That problem is solved. I give the Obama administration great credit for what they've done with this bill because it’s promoting action. Probably the most important is the formation of the new standards charter organization by the leading SDOs who are going to try to reconcile between HL7 and X12 and NCPDP and everything on the computer standards.

MR. WEST: Can we get your question?

MR. MCNAMARA: Yeah. No, the question is, how can we make this happen faster?

MR. WEST: Okay.

MR. MCNAMARA: It’s solved.

DR. FRIEDMAN: I think it’s going—I think the stipulation in High Tech that an initial set of adopted interoperability standards and certification criteria must be established by the end of this calendar year sets a pace that is achievable but also one that--but also one that moves the agenda along at the pace that it needs to move if we are going to come close to the goals that Darrell described in his opening remarks--that was you who talked about the goals.

So that it is a breakthrough stipulation. Once those standards are adopted, they will find their way into certified products. And once they are in certified products, there will need to be a significant amount of testing to be sure that they are implemented with sufficient precision, that the kind of communication that is necessary can occur, but we will do that, too.

We've learned in the trial implementations of the NHIN that we could have four organizations in a room all thinking they have complied with the same set of standards, but if you're off by one micrometer, you still can fail to communicate.

So we will do—we will take these standards. We will, through certification, implement them in products. And then we will do the testing necessary, and NIST is going to play a big role in this as part of their in High Tech to be sure that interoperability actually occurs.

MS. JOHNSON: Could I just add to that?

MR. WEST: Sure.

MS. JOHNSON: There is one other thing that could be done this year to push this along tremendously. It does appear that will go to bundling hospital costs and the first month of post-acute care in at least a couple of diseases and may be in five or six diseases.

Well, that's crossing A and B revenue lines. And, if, in doing that, the administration is able to offer an electronic way of confirming that this is happening and allowing freedom to distribute the money, even in a shared savings model, if all of that is figured out electronically, the ones

pay-for-performance or group—or physician group practice demo that was done with individual isolated practices, small practices, was done in Connecticut.

And they figured out a way that those who didn't have technology could still--you know, could still participate. And you can do this with this system for small hospitals.

But if they take on applying the technology to that bundling, that will survey signal and also give us some experience and how were going to use this that would be—would have an extraordinary effect on the pace at which we move forward.

MR. NEWBERGER: Thank you, Dr. West. Great program.

Neil Neuberger (ph) from the Institute for e-Health Policy and the Capitol Hill Series on Telehealth and Healthcare Informatics.

There's been a lot of discussion on the meaningful use lately, and last week the Markle Foundation came out wit its preliminary report on what ought to constitute—

MR. WEST: Can you hold up the microphone, please?

MR. NEWBERGER: --what ought to constitute meaningful use and certified EHR.

And former Bush administration FDA Commissioner and CMS Administrator, Dr. Marc McClellan suggest that it all ought to turn on the issue of outcomes and all ought to reflect electronic coordination of care for patients and reflect on results. And I think that's a lot of what you're saying, Mrs. Johnson and Senator Whitehouse.

But it was pointed out to us about a week and a half ago, while at [inaudible] by a certain wizened, whose initials are SW, that the debate on the floor on April 2nd on the budget resolution on comparative effectiveness, which really wasn't even at issue in the budget, has already blown up in the faces of the Senate, with frankly the minority members of the Senate attacking the whole notion of comparative effectiveness and its outcomes.

So if we're going to—if we're going to focus in on quality and results and comparative effectiveness and the $1.1 billion in ARA [ph.] for ARC and HHS, then how can we have it both--I mean we either are or we aren't heading into healthcare reform.

And I guess the question is are enough people going to, Mrs. Johnson, focus in on some of the things that you're talking about in judging quality and the other things to make it meaningful in politically acceptable. Thank you.

MS. JOHNSON: Well, now this is an outsider. My view is that some people want comparative effectiveness, coupled with the national board to be able to control benefits, and, therefore, control costs.

And that's an idea that whether it's true or not, it's out there floating. And that's something a lot of people don't want.

But if comparative effectiveness, we begin to get into the methodologies that have to be developed, and the standard of evidence issues, all of which have to be developed and grappled with in a public way, I think we can allay the fears about that and gain the advantages.

So I think this is a temporary bump in the road. I think it's extremely important, though, that the healthcare bill be developed with the participation of interested people from both sides of the aisle; otherwise, these kinds of fears will end up defeating the efforts, so, at least in my humble opinion.

MR. WEST: Senator Whitehouse, did you want to address comparative effectiveness?

SENATOR WHITEHOUSE: Well, it was an unhelpful—

MS. JOHNSON: Right.

SENATOR WHITEHOUSE: --debate I think around that in the Senate. And I think there was a certain amount of sort of pre-position taking. I think a lot of it had to do with the signal of a national health board of any kind would be opposed by the Republicans sort of notwithstanding.

I can't imagine a business leader who would look at a transformation from one assembly line to another assembly line that was one-hundredth the complexity of the transformation we're going to have to go through from our current healthcare system to a healthcare system that is efficient and we can be proud of and not put somebody in charge of that transformation, not have somebody accountable for that happening.

And so, somehow, we've got to establish some accountability for getting that done. And obviously, ultimately, things stop in the executive branch at the President of the United States.

But in the meantime, you've got to make sure that there are people down the way who have the authority and the clout and the decision-making power to make things done and make it move.

And I just hope that the brouhaha that was kicked up over a comparatively benign little idea, like a comparative effectiveness institute, isn't a signal for the Republicans being unwilling to engage in anything that might require any management of this transformation, because if you think that we're just going to go out there and change it with nobody in charge, I think that idea is just bonkers. I mean, there has to be some management of it at some level, and we haven't really thought through how to get that done.

Maybe a national health board is off the table, in which case we've got to make sure that the different agencies involved—ANCHIT [ph.], who knows MEDPAC—National Health Quality Forum. There are whole—National Quality Forum]—there are whole bunch of groups, but we can't just say, okay, the existing system is broken. It's been broken for 20 years. But now we're going to wave a legislative wand and suddenly it's going to start reforming itself.

It's not going to. It got this way for a reason, and unless you change those reasons it's not going to change.

And so when a tiny increment of change, like a comparative effectiveness institute, creates such a huge brouhaha, I think it's a very discouraging moment in the healthcare debate.

MR. WEST: One back there with a question. Thank you.

MS. PEROT: Yes. My name is Ruth Perot. I'm the Senior Executive, CEO, of Summit Health Institute for Research and Education and also a managing principal of a new entity called the National Health IT Collaborative for the Underserved.

Of course, the goal of nearly everybody having access to an EHR by 2015 is an enormously challenging one, more like going to the moon twice or three times.

But I think it's certainly a laudable one. But it can never be achieved if we are not making a commitment at the same time to leave no community behind.

If, in fact, we do leave communities behind--communities of color and the underserved, for example--we're going to exacerbate the disparities that are currently there in health leaving them behind the curve as everyone else benefits.

So it's a very important concern in terms of reaching out, informing, and engaging those communities.

Representative Johnson knows about the outreach efforts that went with Medicare Part D and making certain that seniors knew what was coming down the pike.

I'm—we're concerned that we don't see a lot of discussion about outreach and education of consumers; particularly consumers in those consumers are typically left to behind in the AARA, we're hoping that there's a commitment at the level of the Office of the National Coordinator to remedy that omission or what appears to be an omission.

We'd appreciate any comments.

SENATOR WHITEHOUSE: Can I jump in on that? First of all, I think your point is extremely well taken. I think that the work that's been done in this Congress since President Obama was elected, particularly in the area of community health centers, really empowers community health centers which are heavily located in urban communities to step forward on health information technology, as they are doing in my home state of Rhode Island.

Frankly, a lot of people in, you know, working class people in urban communities get better care than wealthy folks who haven't got--you know, I got one doctor in one town. They got another doctor in another town. Nobody is talking to each other. You go into your community health center, and it's organized. You've got an electronic health record.

There's a lot going on that is very positive and that we need to drive forward very, very fast.

In rural communities, where getting to the doctor is such a big issue, particularly for the rural poor, then the more e-health that we can build into the system, the greater the advantage for the rural poor.

So I think that those are—there's some real promise here for the communities that you're concerned with.

I think one thing that's very important to bear in mind as we do this, though, is that I really hope that ANCHIT and that the Secretary, as they are deciding how they're going to deploy the funding for health information technology, don't just spend it all on breadth. They pick some

places where you can go full blast and spend in some areas on depth. Let's build up a fully interoperable system somewhere, whether it's by specialty or by geography or by illness or by care group.

We can talk about all those things, but the sooner we get a fully functioning, fully interoperable system up and running someplace so that we really see the benefit of it and can start to answer those questions that come up when you're, you know, cutting trail and you're out there at the front of the line trying to work through the issues that emerge, the better off we will be.

So I think it's both important that we make sure we leave no community behind. It's equally important that we make sure that the communities that are prepared to show real leadership in this and to go to a full scale operating interoperable system that we get behind that and that we, in some cases, develop forward as well is out as we are developing this.

MS. JOHNSON: May I just add that in the bill, there are these resource centers. But below that, there are all of these entities that can develop.

And Senator Whitehouse has been very--develop the idea of sort of an extension service capability. And that's absolutely crucial.

About a third of the people who are "uninsured" are eligible for Medicaid or CHIP.

And when those—when states put money into outreach, those people get into the insured system. When they cut the money for outreach, those people fall out.

So we could have a great system and still not have people in it if we don't have--build that kind of intense capability to reach out and support the development of systems in rural areas and in poverty neighborhoods.

DR. FRIEDMAN: And if I could just add from the point of view of ONC, we hear you and we get it.

And while there are things that possibly could have been said in error that weren't said, there are some things that specifically were said. We are obviously very interested in this concept of regional extension centers, and I would just read here from the Act that our science priorities to the work of the regional extension centers to include critical access hospitals, federally qualified health centers, providers in rural and other areas that serve the underserved, under insured or medically underserved.

MS. JOHNSON: You know, we do have the QIO system, too, along with the extension system as models.

DR. FRIEDMAN: So we hear you.

MR. WEST: Okay. I think we're just about out of time. We have time for one more question—in the very back.

MR. MURAD: Thank you, sir. Gary Murad (ph), representing an entrepreneurial health information technology company.

Just a couple of questions on incentives and standards. If you could shed a little light on incentives for adoption, and also taking the Senator's analogy about Amazon, many would say that e-commerce has been so successful starting here in the U.S. because the government didn't set standards on how web-based companies would do business, no standards around setting up a shopping cart or the backbone, and I wanted to know if you guys had comments on that in terms of letting the private sector really develop the standards.

SENATOR WHITEHOUSE: Just a very quick point because I know that Dr. Friedman will be more specific on the standards-setting process that ANCHIT is going through.

I think that there's a couple of baselines we need to make sure we set. One baseline needs to be that every individual owns their own health information. No matter who's got it stored, no matter how it's been massaged or assembled or quantified in wherever it's stored, it belongs to the individual. And that, I think, is a critically important standard.

Nobody should be having any difficulty getting access to their own health care records because some entity has decided that your health care records are proprietary to them. And the sooner we make that absolutely clear, the better off everybody will be as a baseline standard.

The competition to own people's information technology and not share it is a very false competition.

The other point I think is that if we can get to a place where we are comfortable with de-identified and anonymized data being shared broadly, we will create one of the most massive assets for entrepreneurship and innovation we've ever seen.

Everybody in medicine knows about the Framingham Heart Study, which took a relatively small population of people, followed them for a while, created a database, out of which incredible amounts of knowledge about heart and stroke care emerged.

Just the information that we have at our disposal everyday, from billing records and from claims records, from health records, dwarfs that. And it would create spectacular opportunities for people to understand associations between illnesses and conditions and blood types and DNA and various things--the more you can build that out.

Now you can't really do that until people have real confidence that it is fully de-identified and that nobody can use it to get on the phone to you at dinnertime and try and market you something or throw you out of your insurance plan or whatever.

But if we can get that done, then, I think, we will launch an explosion of innovation that is very much to our advantage, because it will provide substantially better health and new discoveries.

It could be like standing up a new Internet and look at all that's happened once that took place. Whoever thought when the Internet was first being built about Google and YouTube and Amazon and e-Bay and all the other entities that are now part of our lives.

That can happen, but you've got to have the open base of information.

DR. FRIEDMAN: Okay. I will comment very quickly to your point about innovation as well. We're still formulating our strategies obviously and more, you know, more will be forthcoming about this. But I will say now that is squarely in Dr. Blumenthal's sights and mine and the rest of the staff that it's going to be imperative to stimulate a vibrant and innovative health IT industry.

The National Research Council report, to which Representative Johnson referred, points to several areas where the technology does need to be improved to ensure that as we deploy health IT, we don't just automate the way it's always been done, which can have effects that are actually deleterious instead of making things better.

So we are really right with you in understanding the importance of innovation and as part of our strategy, I can reassure you this will be a major component.

MS. JOHNSON: I think, first of all, we're just terribly blessed to have people like Dr. Blumenthal, Dr. Hamburg, Governor Sibelius willing to participate in leading the nation at this point.

But, you know, if we do this right, the FDA should not be approving drugs for national use on the basis of a clinical trial of people who have non—had no other co-morbidities. It just isn't the real world anymore.

So what you can do is to have FDA approve a drug for national use. And using technology, every patient who uses it feeds back all--whatever feelings and symptoms they had or benefits they had and from that, within months you could get some national indicators--in four months, six months. And then by the time you roll it out for market trials, you have very good guidance as to or you have much better guidance as to what the likely intended consequences will be and what some of the unintended consequences are.

So I think that if the entrepreneurial community steps up and really we have great leadership, we're going to see a tremendous number of public here credit systems change--actually, not in the public, but also in the private world.

And that, I think, would be a very fruitful one.

MR. WEST: Okay. Thank you very much. Unfortunately, we are out of time. But I wanted to thank Senator Whitehouse, Representative Johnson, and Dr. Friedman for their insights into health information technology.

Thank you very much.

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CERTIFICATE OF NOTARY PUBLIC

I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally transmitted was reduced to text at my direction; that said transcript is a true record of the proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

/s/Carleton J. Anderson, III

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