

HIT Policy Information Exchange Workgroup DRAFT Transcript January 25, 2010

Presentation

Judy Sparrow – Office of the National Coordinator – Executive Director

Good morning, everybody, and welcome to the Information Exchange Workgroup, a workgroup of the HIT Policy Committee. This is a federal advisory committee. It's being held in the public, and there will be an opportunity at the close of the meeting for the public to make comments. Also, a transcription of the meeting will be made available on the ONC Web site in about a week. Members on the phone, please remember to mute your phone lines when not speaking, and also please remember to identify yourselves for those listening on the phone and on the Internet. With that, we'll go around the room and introduce members of the committee who are here at the Humphrey Building. Dr. Stack?

Steven Stack – St. Joseph Hospital East – Chair, ER Dept

I'm Steven Stack, an emergency physician from Lexington, Kentucky, and a member of the AMA board of trustees.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Micky Tripathi with the Massachusetts eHealth Collaborative and I'm the cochair of the workgroup.

Deven McGraw - Center for Democracy & Technology – Director

Good morning. I'm Deven McGraw. I'm the director of the Health Privacy Project at the Center for Democracy and Technology, which is here in D.C., and I'm also the cochair of the workgroup.

Jason Brown – Epic – e-Prescribing Lead

I'm Jason Brown with Epic, and I lead the e-prescribing efforts there.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

I'm Dave Goetz, Commissioner of the Finance and Administration for the State of Tennessee.

Gayle Harrell – Florida – Former State Legislator

Gayle Harrell, former state representative from Florida.

Judy Sparrow – Office of the National Coordinator – Executive Director

I believe we have a number of members on the telephone. Would you please identify yourselves?

Paul Egerman – eScription – CEO

This is Paul Egerman, a software entrepreneur.

Judy Sparrow – Office of the National Coordinator – Executive Director

With that, I'll turn it over to Deven McGraw.

Deven McGraw - Center for Democracy & Technology – Director

I want to start by thanking all of the folks who are here to testify before us today, not just on this panel, but on the panels to come. We recognize what a sacrifice it is, especially in the times that we're in now with so many things going on and all of you. I mean, we invited you here because you're very involved in

these efforts on the ground, putting them into place, and yet that means you're also busy trying to get proposals in under grant deadlines, read meaningful use rules, read certification criteria, figure out what it all means, and get testimony in to us at some ungodly deadline. I just want to say how much we appreciate it.

We're the information exchange workgroup of the federal health IT policy committee, so our goal is to provide recommendations to the policy committee. Which then provides recommendations on to the National Coordinator for Health IT, David Blumenthal, on what policies need to be in place in order to facilitate health information exchange, which is really the key to using this technology in order to improve care. And we have really tried to drill down in some level of detail on some key areas of exchange that are part of early stage one of meaningful use.

We had a hearing on exchange of lab data not too long ago, and so today we're trying to tackle e-prescribing, which is clearly important. Not only does it show up prominently in the meaningful use criteria, but it's one of the few areas of exchange that was actually called out in the statute by Congress, and Congress had their eye on this one for quite some time. So the purpose is not to put you all on the spot, but just to actually give you the opportunity to give us information. What is it that we need to be saying to the policy committee and then to David Blumenthal and the staff at ONC about how to – whatever recommendations can make e-prescribing work better, better for doctors, better for vendors, better for patients. Micky, do you want to--?

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Great. Yes. Just a couple of other thoughts: As Deven said, e-prescribing is incredibly important, and along with labs, are sort of cornerstones of meaningful use, both in the 2011 meaningful use requirements, as well as going forward when you think about their importance for clinical care. As well as for quality measurement and all of the higher-level objectives we want to achieve as well. So it's incredibly important that we think hard about this and think about what sort of policy frame we might be able to put on it to make this move better, faster, cheaper than it might otherwise have.

It's certainly true, even though there are now relatively well developed pathways for e-prescribing, the penetration is still amazingly low, and I'm sure Harry Totonis will be able to give us updated numbers, but my recollection is that from last year's SureScripts report, something on the order of 4% of eligible transactions were transmitted nationally electronically. So it's still amazingly low, although there are relatively mature ways for that to happen now. So we want to understand a little bit of that. And, certainly, if we're going to get to the meaningful use objectives in the timeframe we're talking about, it has to happen much, much faster than it has up until now.

Right now, certainly one of the central sort of points of discussion, I think, is that there is only one way to do e-prescribing, as we know on the SureScripts network. So it is incredibly important that we think about how that be reliable, accurate, relevant, secure, and affordable because now we're trying to drive a whole bunch of people to use what is right now just a single network for e-prescribing, so that becomes an important part of the conversation, I think, as what are the challenges there. But, you know, there are other issues as well. It's not just – there isn't just a network issue. There are incredible issues of adoption on both ends, both at the EHR end, on the workflow end, on the physician office, but also on the pharmacy end.

What we've tried to do is have three panels that kind of capture all the various bits and pieces and look at this in the multidimensional way that it needs to be looked at in order for us to sort of get a better understanding of what these challenges are. And your recommendations and guidance are going to be very valuable here. So with no further ado, maybe we can start. We've got a great panel, and the first

one we're going to start talking about adoption, successes, and challenges. First, we'll hear from Harry Totonis, who is the CEO of SureScripts, and very much appreciate you coming today.

One last thing, we would like, if we can. We have your written testimony, and we would like, if you can, stick to the roughly five to seven minutes timeframe to really just summarize your comments so that we can move to the Q&A. We might be able to give a little bit more leeway since there are fewer members here from the committee, but we do have an hour and 15 minutes, so we should have plenty of time for a pretty rich discussion once we get through each of your introductory remarks. Thank you.

Harry Totonis – SureScripts – President & CEO

Good morning, Micky. Thank you. Good morning to the panel. My name is Harry Totonis, and I'm the president and CEO of SureScripts. As you know, SureScripts operates the nation's e-prescription network, which connects prescribers through their choice of e-prescribing software to the nation's leading payers, chain pharmacies, and independent pharmacies in all 50 states and the District of Columbia. We're not the only choice that people have relative to e-prescribing, but we are one of many networks and probably the largest network.

Through our work in standards, certification, education, industry-wide quality programs and collaboration at the national, regional, and state levels, we have established a national, digital, healthcare infrastructure for the private and secure exchange of prescriptions and related healthcare information. Interoperability and neutrality is at the core of our mission, focused on success. This infrastructure supports and enhances meaningful use of electronic health records.

I want to thank the information exchange workgroup and the HIT Policy Committee for the opportunity to comment on our experience with e-prescribing. I have submitted written testimony in response to many of your questions, and this morning I would like to touch some of the highlights using that five to seven minutes.

While there's always more work that needs to be done, we believe that e-prescribing represents a true success story with respect to electronic exchange of health information, both on a local, as well as a national level. A mature infrastructure is in place to enable electronic prescribing. Physicians and other prescribers can choose from over 250 certified electronic medical records and e-prescribing systems. About over 155,000 prescribers are active in e-prescribing. And about 70% of those prescribers are prescribing through electronic medical records.

I'm happy to report that over 15% of eligible prescriptions are flowing electronically, up from 4%, Micky, as you mentioned, but yet you're right. There's still a lot of progress until we get to 100%.

On the pharmacy side, 52,000 or about 90% of the nation's pharmacies are enabled to receive e-prescriptions. Then through over 25 payers and PBMs that are connected to the network, prescription benefit, formulary, and prescription history is available to healthcare providers on 240 million people or more than two-thirds of the U.S. population. We estimated last year that over 830 million e-prescription messages of all types were sent electronically, an increase of about 250% over the prior year. In 2008, we had about 240 million e-prescription transactions of all types, and last year we had 830 million, so we're very, very happy about the progress that's been made.

The operations of the SureScripts network has a handful of core principles that's been embraced since the beginning, efficiency that results in lower cost, improved safety, and higher quality decision-making. In fact, in December, we announced a large price reduction for everybody in the country who's doing e-prescribing.

Transparency and neutrality, supporting patient choice of pharmacy and prescriber choice of drug therapy; also SureScripts does not do software, giving the prescribers their choice of software solutions. Certification and interoperability through consistent application of objective and ... standards for certification and implementation of technology systems. Quality improvement by working with all the stakeholders to advert potential issues in order to promote patient safety and e-prescribing effectiveness, and education in a collaborative environment to develop educational programs, quality initiatives, certification standards, and to promote dialog to support the future growth of e-prescribing.

Far more than technology is required to make and have a safe, efficient, and successful network. Other services and programs are essential components of the overall e-prescribing ecosystem, and for SureScripts, we provide free of charge the following services to all participant who are doing e-prescribing: certification of e-prescribing systems, certification other than compliance, e-prescribing implementation standards and guidelines development. We make available e-prescribing network technology assets such as directories. We have an industry-wide end-to-end quality program focused on patient safety, education and collaboration. We operate a central hub for network participants to report problems, provide notification and resolution, and we operate the e-prescribing resource center that provides Web and phone-based information and advice to physicians, pharmacies, and payers, hospital, policymakers, and technology vendors.

Physicians, although they do not pay for e-prescription transactions, and independent pharmacists, both cite cost as a barrier to adoption. Financial incentives for physicians and pharmacists to adopt and fully use e-prescribing should be a priority to drive adoption and use of e-prescribing. MIPA and HITECH show that the government is stepping up to offer physicians positive incentives in the short-term, followed later by financial penalties. In states where incentive programs for physicians have been in place, physician adoption is ahead of those where incentives have not been in place. In a few states where there have been incentives for independent pharmacists to get them connected, it appears to be effective in driving adoption among independents.

Governments should also work to insure EMR and e-prescribing vendors certify and deploy all aspects of e-prescribing. By that we mean prescription benefits, formularies, prescription history, plus bidirectional prescription routing, and fully train and support the customers so they can achieve meaningful use. We believe that meaningful use regulations should be designed to encourage actual use of all three aspects of prescribing: prescription routing, prescription benefit, and prescription history.

To make more progress, we also believe that all stakeholders need education on e-prescribing to better understand what is and how it works, how benefits can be achieved by stakeholders, how to get started, how to implement successfully in order to realize full benefits, and how to obtain available incentives. We believe the industry needs to continue to focus on filling in adoption gaps, including connecting additional payers and PBMs, such as Medicaid, connecting additional independent and mail order pharmacies, and insuring that all physicians and pharmacists who certify software are connected and meaningfully using e-prescribing.

Finally, reducing and eliminating errors in the e-prescribing process across the entire industry has always been one of the core tenants of SureScripts. We dedicate significant resources and efforts to standards development, certification, support, and operational monitoring. E-prescribing does deliver improvements in efficiency, accuracy, and efficiency to the U.S. health system. E-prescribing eliminates certain problems entirely like illegible handwriting and mitigates other like insuring drug interaction and formulary checks are always done. Because this is a new technology and a new process, we are aware that e-

prescribing could be possibly introduced new issues that are unique to electronic based systems. Minimizing or eliminating technology related issues is a primary focus at SureScripts.

Our outreach to the entire e-prescribing community from physicians to software vendors, pharmacies, PBMs, and state board of pharmacy, state and regional initiatives, federal involvement, and many others insure that we are listening to the needs and issues, and provide information support and solutions to these constituents. We at SureScripts are very appreciative of the role that we had, along with many others, to make e-prescribing a success and look forward to even more accomplishment. Thank you for the opportunity to testify, and I look forward to your questions.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Thank you very much. Appreciate it. Next we're going to hear from Peter Kaufman from DrFirst. Welcome.

Peter Kaufman – DrFirst – Chief Medical Officer

Thank you. I want to thank the information exchange workgroup of the HIT Policy Committee for giving me and DrFirst the opportunity to testify today. I'm actually going to be speaking wearing two different hats. One hat is as chief medical officer at DrFirst where I am a vendor for e-prescribing software, and the second one is as a practicing physician as a gastroenterologist in Bethesda, Maryland, part of a 14-member subgroup of a 50-doctor GI group, the third largest in the country.

I also want to thank Dr. Totonis for reminding me to mention that because of mature and accepted standards, e-prescribing is really the one place in e-healthcare where standards and true interoperability exist nationwide. And it should be an example for the rest of e-healthcare to drive those standards through because it really does make a difference.

I'm not going to dwell on the successes of e-prescribing. These are important, but I don't think that's why we're here today. Best practices have been disseminated to vendors mostly through SureScripts, but they can't solve all the problems. Incentive programs have certainly increased awareness of e-prescribing and EHR, but more is needed. Information returned from payers and pharmacies has improved, especially over the last year or two, really increasing the value of electronic prescribing. And, finally, these systems have improved safety and saved money for the patients whose providers use them.

But many challenges remain. This is the first of two slides. It's great that the federal government has incentive programs to defray the cost of e-healthcare, but e-prescribing's greatest beneficiaries, other than patients, are the payers. Why aren't they stepping up more to help? You'll hear in a few minutes of the great success of the multi-payer collaborative in Massachusetts, and we have been proud to be part of that, and it really has worked, and we think it should be taking place elsewhere also.

Workflow challenges remain and hinder the value of electronic prescribing, both for physicians and their staff. Not all prescriptions are easily entered due to complex instructions, but this will improve with a structured and codified ... probably more than a year away. Controlled substances still cannot be sent electronically. In fact, schedule three through five drugs, which is basically all the controlled substances but the real narcotics, could be sent by electronic fax until recently. But now must be printed, hand signed, and either manually faxed or handed to the patient.

DrFirst, the Massachusetts Department of Public Health, ERX Networks, and Berkshire Health Systems in Berkshire County, Massachusetts, currently have a waiver from the DEA, and we are actually sending controlled drug prescriptions electronically, including schedule two narcotics. This has been generally well received by the doctors, patients, and the few pharmacies that have access so far, but our

experience is still limited, so I don't want to generalize on it here. We're using a technically complex system, and hopefully the DEA will simplify the requirements in their final rule. Hopefully we'll see the final rule.

Health IT systems need to be more easily able to share data for several reasons. Integration can reduce data entry and improve access to existing information. However, integrating systems is often complex, time consuming, and expensive, and very often must be done individually for each system in each practice. Certain elements such as the CCR, CCD, and thank the meaningful use people for including the CCR, and improved standards like RxNorm will hopefully help make these integrations either more straightforward or unnecessary.

There are state specific regulations that are very frustrating to HIT vendors such as those listed here. As an example, and remembering that prescriptions cannot all be sent electronically yet, both Missouri and Mississippi require two signature lines on their printed prescriptions, one for substitution permitted, and the other for dispense as written. But Missouri requires substitution permitted to be on the lower left, and Mississippi requires it to be on the lower right.

Other states require specific wording to be printed on the script, and many states' Medicaid rules require "dispense as written" to be written on the prescription in ink. This requires extra work for HIT vendors, but more frustrating are state specific certification processes, some of which are not well documented, and requirements for special paper where no two state special paper requirements are similar to one another. In Texas, sorry Texas, control drug lists varies from other states, so linking automatically to a national list is not possible for all states.

Medicaid is also a problem in terms of formulary information, which is often unavailable electronically. But many commercial formularies remain unavailable as well, and this reduces the full value of e-prescribing for practices and patients. Technical challenges are improving, but there are still areas with limited high speed Internet connectivity. And of course, doctors, Dr. Stack, want a device they can fit in their pocket in which they can prescribe and write a script in about two seconds, and that just don't exist. Perfect is the enemy of good.

Finally, I'd like to address poor perception of e-prescribing and debunk the myths. When I do a demo for doctors for e-prescribing, the first thing I do is I write three quick prescriptions, and I do those three scripts in less than 20 seconds, even though one of the prescriptions is a de novo prescription. So the myth that e-prescribing is great, but slower than paper is not true, at least not with the program that I use. Doctors also think it's very expensive because there have been multiple articles that have said it's many thousands of dollars to get started per doctor for electronic prescribing, and it just isn't true. So these misconceptions must be corrected if we're going to get every provider to consider e-prescribing and eventually EHR.

Now I'm going to change hats, and who wouldn't? I'd like to conclude speaking as a physician trying to get my group to e-prescribe. Due to perception, cost, and I can assure you that they were offered quite a steep discount, inertia to keep doing the things that work for them, and multiple workflows, especially for controlled substances, half of my partners still do not e-prescribe, and only a quarter of them use it for just about every prescription. Thank you very much. Again, I appreciate the opportunity to speak today. Thank you for inviting me.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Thank you. Thanks for not wearing that hat today. Next we're going to hear from Kim Dunn from the University of Texas Health Science Center at Houston. Just one reminder for the remaining speakers, we've actually done well on time, but at about the six minute point, if you're still talking, I'll just raise my hand and let you know there's one more minute. Okay? Great. Thank you.

Kim Dunn – UT School of Health Information Sciences – Faculty

I'm going to have three perspectives. First of all, I want to thank you guys for the opportunity to come and visit with you today. First is as a medical home practitioner, I think we need to step back and realize that if we're really going to be about the medical home as a component for healthcare reform, then we need to look at e-prescribing in the context of what a medical home practitioner needs to be doing. E-prescribing is a component of all the information that has to be collected and reconciled by the medical home practitioner, and I think that's a really important point because it has a lot of implications in terms of user interface and a lot of the issues that have just been very eloquently described.

The second element is, I think we need to look at e-prescribing in the context of what we really need in healthcare, which is a comprehensive platform for communication across silos of care. We've got plenty of technology. We've got plenty, plenty, plenty. We just heard that there are a lot of different companies, but what's missing is communication across those silos of care. And I would argue that if you can get a medical home practitioner to communicate with all of the practitioners that are around that patient's network of networks, I would argue that that exceeds any definition of health information exchange I know, and it would fundamentally change the paradigm of clinical practice. That's sort of the second perspective I think that's important.

The third is I represent a Texas consortium where we've put together a statewide group to apply for regional extension centers and really trying to adopt a methodology and a framework on sustainability around medical home and tele-access because we really believe those are the long-term benefits of what needs to happen in healthcare.

Finally, my perspective as a practicing physician who I'm very grateful, and I want to us to step back and actually applaud our country in terms of, during Katrina, a very big thing happened with e-prescribing opportunities. And that was all of the challenges that were across the state lines at that time got solved with a lot of people committing to commit on early morning calls and were able to actually get what data that was in the systems out to the practitioners. And we were very grateful for that in Houston because it was the only data we had when we were seeing about 700 patients a day de novo and Georgia R. Brown. So I just wanted to say that there is a lot of opportunity around e-prescribing.

And so the comments, I don't want you to think that I'm just kind of a bitchy lady from Texas in terms of saying there's no good. I think there's great value and great good. So I'd like to sort of give you a perspective in terms of around the medical home concept and that perspective as a model for doing a clinically based network of networks. We talk about network of networks all the time, but we never really clinically, operationally define it.

I wanted to talk about that and the implications of that for e-prescribing because, as an example, I have a patient who may be seen by a cardiologist. They may be seen by an oncologist. They may be seen by a lot of different folks. Let's assume that they're all on different information systems, which is probably the case, and the idea is what we're focusing now is really trying to get that data exchange. You still have to have that data reconciled to a comprehensive care plan for that patient, in our belief.

The idea then is how would you actually go about doing that because I think one of the bit problems that we see with e-prescribing in terms of trying to get that data for viewing purposes is that, you know, we're just talking to try to get the data into systems. It's one if you're trying to get the data to be viewed, which is a great value. How you do that to where it's efficient for the practitioner is really a key barrier because there are many, many, many competing demands on the primary care practitioner in terms of being able to get that data and reconcile that efficiently.

Many of my colleagues, we don't want to be data entry clerks. Everything that is moving forward is, oh, we'll just get the doctors to enter the data. Well, that is just a really – why do you get the most expensive person on the healthcare team to go and enter data? That just continues to floor me. So what I and my colleagues want to do is we want to be able to dictate, delegate, and manage, and I think that has a lot of implications for what we need to be doing in terms of specific to e-prescribing.

The other key issue is the notion of tele-access as a ubiquitous sort of thing in terms of being able to communicate between the practitioners, the network of networks and, more importantly, the pharmacists in a secure way because there are lots and lots of issues, particularly in terms of if an order gets put in wrong. They've got bad juju in terms of what they have to do to go track down that doctor, reconcile the data. It's a big issue. Doctors, once they get burned one time just on that, they're not going to touch it.

The second issue, the other key barrier is the DEA controlled substances. Anywhere from 10% to 20% of a physician's practice, depending on their specialty, they're going to be doing that, and they are just not going to want to do all the various paper processes. It's just bad, bad situation. In Houston, we are doing an NIH funded pilot where what we've done is developed a comprehensive – and all this stuff that we do is open source – is a care plan that could actually take data and then try to drag and drop that data into the right box. And we're looking at and, actually, we're in the process of testing some of the usability metrics in terms of which ones would make the most sense to take and put in to be part of an overall global care reconciliation plan. So I think we need to be thinking about that as a key model for us moving forward, and then some of the other issues in terms of how you can do some of the secure messaging and some of those kinds of aspects.

In closing, I'd like to say that I would like to remind everyone that the original definition of a computer is one who computes. And that the medical home practitioner really is going to be at the fulcrum of healthcare coordination, data collection of outcomes, and documentation and assurance of care delivery that looking at the user interface and the context of e-prescribing in terms of the global amount of information that must be managed. That's my story, and I will stick to it.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Great. Thank you. Next, and let me apologize in advance for the butchering I'm going to do of your name, Bettina Black from the Tennessee Pharmacists Association. Thank you very much for coming.

Baeteena Black – Tennessee Pharmacists Association – Executive Director

Good morning. You didn't do such a bad job. Thank you. I am Baeteena Black. I am a pharmacist, and I serve as the executive director of the Tennessee Pharmacists Association. Today I'm here to represent the views of independent community pharmacists on this very important topic. I will provide an overview of the comments that I submitted.

Pharmacists consider themselves to be healthcare providers and patient advocates and, in those roles, we support the adoption and use of safe, accurate, resource effective, e-health technologies, including e-prescribing because of the potential to increase efficiency, enhance patient safety, and provide healthcare providers with access to critical patient medical information. And, as has been discussed, there's no

question e-prescribing is growing. However, only 60% of independent pharmacies are even connected for e-prescribing routing, much less using it. This is primarily because independent pharmacies are continuing to experience technological, economic, and operational costs and time resource challenges in the implementation and use of e-prescribing.

Independent community pharmacists have concerns in two primary areas, patient safety and economic burden. Of paramount importance is patient safety. Unfortunately, during the e-prescribing implementation phase, pharmacies are experiencing a significant increase in prescribing errors produced in the e-prescribing process compared to the traditional prescribing process, errors, which had the potential to cause harm to the health and safety of patients. Errors have been reported in many of the essential prescription components including patient, prescriber, drug product, quantity, direction, and then there are other problems. Prescriptions are being sent multiple times from the same doctor. Refill requests are sent to the provider, yet come back as new requests. And then there are those cultural errors where physicians have been insisting to pharmacists they can e-prescribe controlled substances because it's an option in their software.

These and other types of errors negatively impact patient safety. The State Pharmacy Associations have done many surveys and focus groups. In one of those surveys, four times more respondents found more prescribing errors resulting from e-prescribing, and three times found e-prescribing and even the eRx, the faxed prescriptions, are more difficult to resolve than the non-prescribing prescription error.

Then pharmacists have identified an additional concern, the failure of e-prescribing technology to consistently send multiple prescriptions from one provider for a single patient together as a bunch or batch. This continues to result in patients occasionally leaving pharmacies without all of the medication prescribed. These errors are unique to e-prescribing and the time spent addressing them limit the true efficiencies of e-prescribing from being realized. There's a need for improved user interface and collecting error info and tracking quality improvements so that problems can be addressed.

While the focus today is on e-prescribing, I think it's important to mention that in addition to medication records, pharmacists believe any health infrastructure developed must include provisions insuring that pharmacists as providers are able to have both read and write access to the complete medical record and that appropriate interface be provided. Pharmacists have access to information that needs to be included in those complete medical records that does not come through the e-prescribing process.

In addition, while the initial focus of medication reconciliation in meaningful use is in the institutional based area, community pharmacists also believe it's important they, as well as other healthcare providers, be included in the e-health development process. Any system developed should provide for easy access to all healthcare providers to a complete medication use and history record. We've been diligently working on a process in Tennessee, but it's still a paper process. And certainly that's a barrier.

E-prescribing places cost upon pharmacists that must be addressed. First, initial cost can easily run several thousands of dollars for pharmacies. People have assumed because we're back there looking at a computer, processing prescriptions and sending them electronically, we have no cost associated with joining in the e-prescribing process. That is not the case. Grants are needed to help us with those costs. In fact, we have been working in our state with the State of Tennessee. I have worked very closely with our Commissioner Goetz that's here in providing grants, and that has indeed spurred the adoption of the e-technology in Tennessee.

Time and money resources also need to be spent on staff training. Again, our pharmacy staff have to be trained on the use of the technology, just as other providers. Then, most importantly, the significant

economic burden of ongoing transaction fees paid by pharmacies and no other participants in the e-prescribing process must be considered. In all of our surveys and focus groups, the ongoing transaction fees were identified as the single biggest economic barrier to adoption and use of e-prescribing in independent community pharmacies. When fees and reimbursements are going down, and costs of doing business are going up, these transaction fees are a significant barrier.

Then a recent survey done in Michigan when asked what does it cost your pharmacy to receive a new prescription or a standard renewal request electronically, almost 70% of the respondents said \$0.25 or more, and these costs are associated with every incorrect prescription that comes through. They're also associated with every controlled substance prescription that comes through. And there is no way for pharmacies to recover those costs. There's no reimbursement for those prescriptions.

Other operational challenges: One of the causes of e-prescribing errors has been identified as problematic is in the software logic contained in those various e-prescriber software programs being used in the marketplace. While there's been standardization described, there's lack of standards in the logic. The standards only exist in the communication software. There are no safeguards to prevent someone to prescribe a tablet or capsule ... take two tablespoons. It's a problem.

The need for a final review screen before any prescriber can send a prescription and a confirmation of the number of prescriptions sent would be recommended. And there is, of course, the situation that's already been mentioned with the controlled substance issue. We certainly hope that we will see those regulations and can work with the DEA such that we can add controlled substances to those prescriptions.

If together we work on ways to track and advocate for training and collection of data to develop standards that improve the safety and quality of e-prescribing, we acknowledge and encourage targeted support to help in the adoption and ongoing cost to pharmacies, and remove those operational barriers, I believe we will be successful. Thank you for giving me the opportunity to provide the comments. I'd be pleased to answer any questions or assist the workgroup.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Great. Thank you very much. Our last panelist for this first panel, I'm pretty confident I won't butcher his name, Steven Fox from BlueCross BlueShield of Massachusetts. Thanks, Steven.

Steven Fox – BCBS Massachusetts – VP Provider Network Management

Thanks, Micky. Thank you, also, to the workgroup for asking me to be here as one of the, I think, only payer representatives, so thank you. BlueCross BlueShield of Massachusetts is a not for profit organization that is the largest health plan in New England. Our history and our future is one of collaboration with the community to improve the health of our nearly three million members, and the quality of care in the Commonwealth of Massachusetts. Our vision at BlueCross BlueShield of Massachusetts is a transformed healthcare system, and we have done a lot around that.

I'm going to focus today in my role as vice president of network management and contract operations and responsibility for our e-health programs to really focus on our e-prescribing experience. We have several years experience with e-prescribing. Our experience goes back to 2003, and we are one of the earliest supporters nationally of this technology. We believed, before we were able to prove it, that there were any savings associated with it, and some of those studies have started to bear that out. We believed it was the right thing to do. We believed that quality would improve, the reduction in errors and, more importantly, the efficiency and the safety of prescribing medicines electronically. That was our primary reason.

As a founding member of the e-prescribing collaborative, which is a multi-health plan and vendor collaborative in Massachusetts that was set up to promote and enable the use of electronic prescribing, we played a lead role in increasing provider adoption of this technology. Our contribution has led the state of Massachusetts to set national benchmarks. Since 2007, SureScripts has ranked Massachusetts the number one state in the nation for electronic prescribing volume. We're very proud of that, and I think we have used our opportunities, our lessons learned, and a lot of the detail has been submitted in my written testimony.

Let me just hit several key points. Since the collaborative's inception in 2003, we have sponsored over 6,000 providers with electronic prescribing technology. These providers have sent nearly 20 million electronic prescriptions over 6 years. Within the BlueCross BlueShield network, the percent of prescriptions written electronically has increased from 5.5% in 2005 to 13% in 2009. Apart from the collaborative, BlueCross BlueShield specifically has offered pay for performance programs for e-prescribing, as well as electronic medical record and other health information technologies. To encourage the adoption of technology, we have offered these incentives since 2004.

Prior to MIPA, prior to HITECH, these programs have really evaluated, at the time, numerous standalone e-prescribing systems. And now, as more and more electronic medical records become part of the process, this has helped immensely to increase our knowledge of the market, as well as vendor capabilities. We have paid over \$27 million in physician incentives since 2004.

E-prescribing aligns with our goals of a transformed healthcare system. In an effort to support this, BlueCross Blue Shield, in October of 2008, put out – essentially what we said was that all physicians who participate in our pay for performance programs must prescribe electronically in order to qualify for any of our incentive programs. This mandate is effective January of 2011. Again, we set this prior to anyone telling us we needed to. We believe it's the right thing to do, and we believe that electronic prescribing is now just part of normal course of care.

Key features from our perspective of e-prescribing that drive prescription affordability and patient safety include several key points. One, obviously the ability to check prescription benefits in real time is very important. A patient's ability to take the prescribed medication based on coverage that they have at their plan based on formulary tiering for benefits is critical. Access to plan formularies to know what's covered and any lower cost alternatives, generic equivalents, etc. The ability to pull in external dispensed drug history, to enable the checking of potential drug/drug and drug allergy interactions, as well as duplicate therapies, and also, just as important, for full end-to-end connectivity, the ability to electronically transmit prescriptions to retail and mail order pharmacies.

While e-prescribing has become more widespread, there are issues, as you'd begun to hear, that need to be addressed, particularly as electronic medical record adoption increases and more providers look to these tools to provide their electronic prescribing. Let me point out several key areas. First pertains to functionality within the electronic medical record field. According to SureScripts data from 2008, only 30% of the EMR software include full e-prescribing services, namely prescription benefit, prescription history, reporting, and electronic routing. As stated above, these are the services that drive the full value of e-prescribing for payers, patients, providers, and pharmacies.

Vendors vary significantly in their approach to embedding e-prescribing functionality. Some offer seamless integration, and others create complicated workflows, which require providers themselves to update and upgrade their systems on a regular basis. Our experience suggests that providers are most successful when e-prescribing is seamless, requiring just a few clicks such as monthly formulary changes and make sure that that data is integrated within your EMR.

The second issue is reporting capability. As I mentioned, since only 30% of the EMRs are reporting usage through SureScripts, there still are many holes and many vendors lack basic reporting capability. The use of prescription origin code is the optimal way to measure utilization for all payers and would eliminate many of these challenges. This is currently only mandated for Part D beginning in 2010, and so we believe that that is critical.

Finally, as we've already discussed controlled substances, we need the ability to provide controlled substances or the ability to prescribe controlled substances through the technology. In final, to wrap up, standardize the use of prescription origin code, require electronic medical record vendors to provide transparent and easily accessible utilization reports, technical resources through the regional extension centers, and we believe this will further drive adoption and lead to safe and effective care. Thank you.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Great. Thanks very much, Steve, and thanks to all of our panelists. That was terrific. We have a little bit more than 25 minutes, I think, for conversation, so that's terrific, and would like to turn to members of the committee for their questions and comments. Why don't we start on that end, and we can go around?
Gayle Harrell?

Gayle Harrell – Florida – Former State Legislator

Thanks so much, Micky. Thank you all for coming and being part of this discussion. I think e-prescribing was always seen as the gateway to EHRs. Most states, I know Florida, Tennessee, other states always got early on this bandwagon of e-prescribing in hopes it would drive adoption of EHRs. Of course, HITECH changed that, and now you are a component of basically an EHR, although some physicians may only choose to use the e-prescribing. When 2015 comes and the penalties kick in, that will change, I'm sure.

However, I think one of the things I'm hearing today, which is really concerning to me, is when we talk about error rates. And I'd really like to hear some further discussion of error rates. Then also, what that impact is on the prescriber. Who is responsible for that? If a patient receives an incorrect medication, is that a liability for the physician, or is that part of the software problem? Who ultimately is going to be held accountable for that?

Baetteena Black – Tennessee Pharmacists Association – Executive Director

Well, I certainly emphasize the error rate because it is an ongoing issue. Let me answer your last question first. I think everyone in the system is going to be held accountable. We all have a duty to take care of the patient, so I think it's going to be shared. First, let me say that I've actually – in Tennessee, we've worked with Q Source. Our Medicare quality improvement organization actually done surveys ... pharmacists upset with physicians. We've looked at these systems. We do not believe that it's a failure of physicians to perform. It's a failure of their software systems to perform.

We have tried to collect information. We found that a bit daunting. I belong to a group, the National Alliance of State Pharmacists Association. We have put an e-portal on our patient safety organization, and we're collecting information on the types of errors. Even when they're identified, and you go to the software vendors, there doesn't seem to be an organized approach to addressing those problems. There is no standardization, and we don't seem to be making fast progress there. In our state, we're partnering with our physicians trying to address this, but until the systems themselves address those errors, I think that we're not going to make much progress in this area.

Gayle Harrell – Florida – Former State Legislator

Do you have any statistics, any actual hard numbers as to what percentage error rate there is? I'm interested in further information on that. I don't know if SureScripts kind of keeps track of that kind of thing, or can you, when they ping your system, do you identify duplications and things of that sort?

Harry Totonis – SureScripts – President & CEO

Let me just comment on that. There are multiple components. First of all, we at SureScripts take errors very seriously. The whole premise of e-prescribing is to enhance patient safety. Therefore, we are absolutely very concerned and work to address those issues. Let's talk a little bit about both in terms of what we see, and what we do.

First of all, we operate – at the most core level, we operate an operations call center that allows anybody to call up and report any kind of a problem. And we have trained staff who actually, first of all, notify people involved. Then, second, take steps to resolve those issues. And we also have the ability, working with the pharmacies and the software vendors, to stop a link to stop the flow of electronic prescriptions if we believe that there is a patient safety issue. That's....

We have, when we have detected an error, we have worked very effectively with the software vendors, pharmacists, and prescribers to solve that problem. And in order to insure that there is no patient safety issues. That's in terms of the system.

In terms of statistics, first of all, it's hard to compare e-prescribing to the alternative because there are no data that's kept for manual prescriptions or faxed prescriptions, so we in fact don't have a good comparison. But relative to what we can report is that we do track both proactively and, if something happens, any kind of a problem, and we work very effectively with software vendors to address those, and I'm thinking when things have happened, regardless of who the software vendors are, they've stopped. We fix the problem, and we recertify the system before ... again, so again it minimizes the component. Also, this year we introduced an end-to-end quality team made out of pharmacists, engineers, and quality experts that looks at the end-to-end process from the time of prescriber all the way down to the patient and the pharmacy, and track all of the aspects, and identify proactively potential problems. And we actually work with all collaborative with all the people to try to address those issues before they happen.

Now, in terms of statistics, we do get phone calls. Now let me just describe. We had, last year, we said 830 million total e-prescribing transactions through the network. We see, our call centers get lots of calls every day. Most of them are not around errors. Most of them are connection issues or directories or updating. In terms of errors that we address, we usually get one a day, and those, most of the time, are resolved quickly without any data that we've seen in terms of any patient harm.

The other aspect of this is the pharmacist is the person or the professional who looks at that and looks at the actual prescriptions to make sure that things are addressed. And, actually, we work with them to identify if there is an issue to quickly get. So there is, most of the data is ... you know, is issues that ... but we don't have, so we don't see.... Relative to the Michigan study that was cited, we are working with the Michigan study to identify the errors that Bettina identified. We saw that out of – you know, that was not a formal research study. It was a survey. And out of 13,000 pharmacists, 73 responded. However, the fact that 73 responded, it is a concern with us, and we are working with that Michigan study to understand it and ... what things we should do to address them.

Peter Kaufman – DrFirst – Chief Medical Officer

In terms of the Michigan study, in addition, 60% of the pharmacists that did respond reported the same number or fewer errors, and only 40% of those respondents reported more errors. It is anecdotal evidence, and we will need to get some hard data from research studies, and we are very concerned about any errors.

There was one study that was done on phone calls to doctors' offices. I believe it was in Rhode Island that showed the phone calls dramatically decreased. If there is an increase in errors with electronic prescribing, you would expect an increase in phone calls to the physicians' office. So I'm not sure how much of an increase in errors there is on a nationwide or statewide basis, but it is a concern.

Let me briefly talk about two workgroups that I've been involved with and what we've done about this. One of them was the CCHIT standalone e-prescribing workgroup. And in that workgroup, we required for certification by CCHIT either that the system checked to make sure that the route given by the medication is appropriate, or that it filter the possible route choices so that the person would only be able to choose a route that was appropriate for the drug, hopefully reducing errors.

The other workgroup I'd been on is the structured and codified sig workgroup for NCPDP, and we've also been testing that in the CMS sponsored study. And we have found that although the workgroup had come out with, you could only use either the notes field or the structured sig field that that doesn't work for a large number of prescriptions. So we are going to be recommending NCPDP modify it to allow both notes and codified fields, which could lead to a problem in errors. A doctor could write in the codified take one four times a day, and in the notes say take one three times a day. There is no substitute for somebody actually checking the prescription over and thinking as they write it, but it can happen that way. So that's one of the things that's going to be hard for software vendors to filter when they're doing that.

Kim Dunn – UT School of Health Information Sciences – Faculty

I think one of the issues really is in what constitutes an error. It's a very wide range of issues. It could be something from not putting something in the right field, that kind of thing, to something that causes great harm to the patient. From our looking at it, there really hasn't been a really good taxonomy of errors for e-prescribing, and that would be sort of a first step that you would want to take in terms of sort of structuring, okay, what's an error? What's bad? Sort of step one.

The errors that we had seen in the lab and in some of the field evaluations we've done is really the biggest issues really come around in the physician's office is the user interface issue. And discrepancies in that user interface if a physician goes multiple places. I think ... well, I forgot, so some of the discussion in terms of the unified sort of user interface would be one key element.

The second issue is the errors that are generally detected by the pharmacist. They're the ones. They're really sort of the ones that I think the physicians rely on, and I think their perspective in both of those issues would really be important because I think they have a lot of user interface issues also because they may have multiple things that they have to manage. And if you're increasing the number of systems and things like that that come in, you're going to, without really looking at the user interface issues and all those kinds of things, you're going to increase as we move from, in Texas, 3% to 4% up to say 10% to 15% of e-prescribing, just as an example. But those would be my comments.

Steven Fox – BCBS Massachusetts – VP Provider Network Management

Before we leave the error thing, I just wanted to make one other comment. I think that one of the things that Harry Totonis raised is important. It's this question of the net errors. We've rolled out a lot of electronic health records in Massachusetts as a part of our project, and one of the things that we did was

survey physicians and ask them ... if the EHR system caused errors, and they all say yes. And then someone, Dr. David Bates, who is the head of our research team, was clever enough to add the second question that said, on net, are you experiencing fewer errors or more errors, and they say fewer errors. So I think that's an important thing to sort out, but I would also – just so everyone knows, there is a study going on right now led by Dr. Rainu Kaushal from Cornell Medical School looking at medication safety with respect to e-prescribing in the Taconic IPA and the Mass e-Health Collaborative practices.

Looking at the paper side, and I don't want to steal the thunder of what she's going to hopefully publish, but she's found a lot of errors on the paper side, but also found, to your point, Dr. Dunn, that it was incredibly hard on the electronic side to detect what's an error. And it also varied a lot by vendor system. The information you get from each vendor system is very, very different, and so we have three or four EHR systems, and it was really hard to interpret what was an error, what caused the error, and all that. It's fairly complicated.

Harry Totonis – SureScripts – President & CEO

Maybe just one comment, we have established earlier last year and the middle of this year, we have established an industry quality team. They track all the information. We have created a taxonomy internally, and we also are looking proactively in terms of different vendor systems and looking to see. And we've started to have conversations with the individual vendor systems saying, here is our experience. Let's talk about what we have found and what is it that you're going to do.

We have got an incredible response from the vendor community to address.... We are planning to go more in public with this information and more of this to make it available to everybody. The past six months have been sort of internal trial, and I think this will address some of the issues that, I think, rightfully Bettina raised.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Can I ask one more question on the error thing before we change topics? Bettina, you had noted that for the independent pharmacists, you said that there were two barriers. One is the safety issue, and the other is economic burden. On the safety issue, I'm just wondering. The chain pharmacies, on the other hand, who are members of SureScripts, are pushing this very hard. Do they not; do they experience less on the safety and error side because perhaps they have more money to invest in systems that can catch this in a way that independent pharmacies, because they may not have that access to capital or technology, don't? What's your sense of that?

Baeteena Black – Tennessee Pharmacists Association – Executive Director

This would really be a sense, and the sense would come from conversations with the actual practicing pharmacies. Chain pharmacists are members of my organization, as well as independents, and it really widely varies, again, depending on what chain and what type of technology they're using. However, I will tell you that I have not had a conversation or a query with any pharmacist that doesn't say there are significant e-prescribing errors coming through. And I totally support the recommendation regarding looking at those interfaces, user interfaces, which I had mentioned, as well as I promoted that we really do need to take a look at this because a lot of what's been collected has been anecdotal.

I mean, I could provide for you copies of just tens of thousands of prescriptions that have these errors that really doesn't do any good until we really go back and look at how we fix this and have some organized approach to that. But I do think it does vary depending on what software and what types of filters you have in place. But I do think that even those in the chain community would tell you, they're still experiencing errors as well.

Gayle Harrell – Florida – Former State Legislator

Micky, if we could perhaps add that as a discussion for certification for the certification committee to look at, and where we go with reducing errors, and what kinds of standards might need to be required through certification to address this issue.

Paul Egerman – eScription – CEO

Good idea.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

That's an interesting issue. Actually, Paul Egerman is on the phone, I think. Maybe we can ask him to comment after we've gone around a little bit. Dave Goetz?

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

Good morning. It's a pleasure to be in a group where actually a substantial fraction of the people talk like I do. You're from the south, but you don't count, Gayle. You don't....

Gayle Harrell – Florida – Former State Legislator

I'm in Florida.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

So I'm glad you structured the panel correctly.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Speak more slowly, so the rest of us can understand, that'd be great.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

And Bettina and I have had a good working relationship trying to carry out e-prescribing in Tennessee. One of the things, in addition, kind of giving grants to the pharmacists on the end, I mean, they're nominal. They're not enough to cover the cost of changing the software and hooking up, but it is at least an incentive, and it does encourage people to do it, and it does work. We also find it works on a community basis. If you go in and you get the prescribers and the pharmacies and communities to come in and sit down together, they can then kind of work through a lot of issues, and you build a better approach about how that works from place-to-place.

A couple of things, I guess. One, just to follow up on this, Mr. Totonis, you mentioned that you're in the QI process. Given kind of the speed at which this whole sector is having to move based upon the new rulemaking and the incentives, you could provide a lot of certification validation of the quality. It's not just the technology and whether or not the electronic handoffs get made, but it's also, again, as we've been talking about the error rates. I don't know whether you track reworked prescriptions, as they fly through your system. That obviously could be kind of a key metric as to how many of those 830 million are in fact repeat messages, if you will.

And it also, one of the things we know is that some of the vendors do a good job of working with their customers in the physicians' offices, and some don't. Some taxonomy and criteria of who is doing a good job of that, whether it's surveys back to the implementers, and saying yes, I got what I needed out of this. And when I call back up, they don't tell me to call somebody in some other place to deal with this problem because it's a continual training and support effort that also kind of is required. It would seem to be the kind of thing you would know better than we would, and it's the kind of thing the RECs and others are going to be desperately needing to have a systematic approach on how that kind of work can be done.

Dr. Dunn, one of the things that occurred to me, you talked about the importance of delegation. I know, in a normal practice environment, a lot of things get shunted to a lot of different people, and because you are trying to value the time of the physicians pretty carefully. But the DEA rules are going to require hands on, I think, authentication of the individual. And in order to kind of train people up, you're not going to be able to just have the nurse who now you have to have another nurse to go back and fix all the normal errors, so how do you deal with that?

Kim Dunn – UT School of Health Information Sciences – Faculty

We're certainly ... doing that, but I think the issue is, you can dictate into a system as opposed to have to do things. And I think that culturally physicians are used to dictation. It's a lot quicker to dictate something than it is to go log in and those kinds of things. I mean, it's just a fact. So I think that the issues are, you know, it's a workflow issue. It's how you can provide that multi-way mechanism for clinicians to enter the data. I'm not trying to say that physicians should just say something, and somebody else has to scurry around and do it. They have to take control of that process, but the interface in terms of efficiency of that practitioner's time is something that I think warrants exploration is what I was trying to say.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

I guess the only other question I had really right now was, Mr. Fox, you talked about your pay for performance system. Until we get state employee health plans, large corporate health plans engaged in these processes effectively and willing to support this, the pay for performance, \$27 million over 4 years is a big chunk looking at it, but it's not a lot when you think about the volume that's going through your system. What else would you do in other kinds of supports or do you do in other kinds of supports to get your physicians adopting electronic prescribing?

Steven Fox – BCBS Massachusetts – VP Provider Network Management

Relative to the dollars, it actually may not seem like a lot relative to the prescription volume. But if you look at what those dollars have – we have ... the pay for performance dollars aside, as a health plan in particular, we have funded, frankly, the technology through licensed subscriptions from the beginning. So our proposition with the physicians has been, well, look. We'll pay for the license, and we'll pay for you to use it through incentives, which more than offset the cost, and we still don't have everyone adopting it, and I think that's been the disappointing part for everything that you've heard is the ability to get more and probably more specialists, I think.

Primary care physicians, for the most part, have picked up and adopted that. But it's still 10% of our prescription volume is electronic. So I think, as a payer community, we need to continue to look for those opportunities. I think the challenge that we have, and we're working through these now, as meaningful use criteria is defined, and as those subscription models change now with electronic medical records and the ability for doctors who have EMRs to upload to the e-prescribing pieces, we're working to figure out exactly how do we interface with those particular vendors.

I think incentives, clearly, but what we found more than just the dollars, even when we put the dollars on the table, and several of my colleagues on the panel have raised it. Once the physician hits an error, a blockage, all the goodwill that we've done kind of goes out the door, and they'll stop. The workflow is interrupted. They're embarrassed in front of their patient. The patient presents to the pharmacy. A parent who is told the script for their kid is there, and it's not, so I think what we need to do is make sure that the workflows are such because our data shows, doctors offices save one to two hours a day. From our perspective, our members who are getting these electronic prescriptions, because their copays are lower, they save significant dollars as well.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

Have you considered, in taking your provider education kind of groups and setting them into the doctors offices because it's a lot of pre-analysis. It's not, I mean, you don't want them to go in there and then stumble.

Steven Fox – BCBS Massachusetts – VP Provider Network Management

That's correct.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

You want to have done the work prior to the implementation, so do you do that or should you do that?

Steven Fox – BCBS Massachusetts – VP Provider Network Management

Absolutely. We have actually a pretty robust – because of the length of time we've participated, we've learned a lot. We have very good materials up on our Web site, as well as the ERX collaborative Web site. We talk about barriers to adoption. What are the points where you'll fail? How do you overcome those?

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

To interrupt, do you then certify them to be ready?

Steven Fox – BCBS Massachusetts – VP Provider Network Management

The docs?

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

Yes.

Steven Fox – BCBS Massachusetts – VP Provider Network Management

We do not.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

Should that not be what happens is that...?

Steven Fox – BCBS Massachusetts – VP Provider Network Management

Sure.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

It's like in any system implementation, if you don't do that user acceptance testing and make sure that it actually works, you know, somebody ought to be.

Steven Fox – BCBS Massachusetts – VP Provider Network Management

Sure.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

That's, again, I'm back to the question.

Steven Fox – BCBS Massachusetts – VP Provider Network Management

It might be back to others on the panel to do that.

Harry Totonis – SureScripts – President & CEO

SureScripts certifies all the vendor systems, including the recertifications.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

But not the doctors, not the preparation that's there.

Harry Totonis – SureScripts – President & CEO

No.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

Or the job that the vendors are doing in certifying that the doctors are in fact ready....

Harry Totonis – SureScripts – President & CEO

Well trained ... no, we do not.

Peter Kaufman – DrFirst – Chief Medical Officer

The outcome of that is the data. I think that, one, just to answer your last point, I mean, as a payer, I think what we make sure of is in addition to the certification that Mr. Totonis is raising, we also make sure, as we go through our certification, that we know which vendors are touching the physicians that we work with. Ultimately, the gauge is, is that doctor using it? And if they don't have a rapid uptick, what we need to make sure, and that's one of our key lessons learned, is to get in there early with the appropriate resources to find out why because the ultimate test here is are you using it, and if you're not, why not. It's pretty clear that if you don't have early adoption quickly.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

SureScripts has the information on how that works, so one of the things we did, I required that in our PBM for our Medicaid program, TennCare, that they be SureScripts compliant. But we need to talk about the reports we're getting and whether or not we're getting the kind of results from the charge we now pay that we would expect.

Harry Totonis – SureScripts – President & CEO

Absolutely. We do the certification and the recertification. We do also have what we call our gold programs and programs that are voluntarily for vendors to strive or achieve a certain set of quality standards. However, we haven't gone back and looked at the data in saying who is not doing a good job, and let's report on that. We're looking into it in terms of how we create more of an industry wide quality program that everybody can accept and actually have more transparency and visibility in that.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

We need that, like, yesterday, unfortunately, with the kind of accelerated framing.

Harry Totonis – SureScripts – President & CEO

Absolutely. We'll be happy to come back with some ideas on that.

W

I think one of the things, the approaches and the implications of the regional extension centers, I think one of the things that you have to do if you're going to be able to quickly assess if the practice really is ready and prepared to move forward. And I think that's a key element, not just on the e-prescribing, but on the other general adoption issues. I think SureScripts and some others have actually developed some very good tools that can be taken and used in that rapid assessment of a practice to look for preparedness.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

Remember, the RECs are going to be extremely limited in their reach. I mean, \$30 million is not going to be....

W

Believe me, I know....

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

Yes ... focused group, and until we get this out....

W

But the issue is it depends on how you're working with your infrastructure, your physician infrastructure, nurse practitioner infrastructure, your Medicaid infrastructure, how you're working together with them as a team, and then you can actually, because the RECs are, you know, from a business standpoint it's crazy, absolutely crazy. From a policy development standpoint in terms of kick-starting opportunities for moving forward, it makes great sense as an opportunity for trying to look at getting multi-stakeholders together to say, what do we need to do with vendors, practitioners, state Medicaid and things like that. It makes very, very good sense.

I think, if you look at it in that context as a point of sustainability for ten years down the road, that kind of thing in terms of what the needs are going to be for automating clinical practice and exchange, I think it makes very good sense. But you really need to get all those groups together in a state to really move that whole dialog forward, I think.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

Yes.

M

I'd just like to make a quick comment. On that pre-certifying of the practices, it's not all that practical, except in the few places where there are programs that are funding this well, like Massachusetts and apparently Tennessee. It's the practices that are paying for electronic prescribing, and they're paying a few hundred dollars a year. It's not a lot of money. The large practices are likely to be ready because they've got IT. If they don't have in-house IT, they've got contracts with companies that are coming in. It's the many, many practitioners in very small practices that are both unlikely to be ready and extremely expensive to touch closely to see that they're ready.

We do have policies that we've done to try to make sure that they're ready, and a lot of them have been incorporated into SureScripts best practices, which may take away a little bit from our lead, but we do try very hard to do that. But it's very expensive. If several doctors are going to pay you \$500 or \$600 to get started to send somebody to the middle of South Dakota and spend a day or two days to make their practice is ready, it'd take you years to get ... it is a business here. So another reason for payers other than Medicare to get involved and to help to promote this because it will pay back in spades.

W

I think the thing is, I think that again points to the fact and the need to look at these ... long-term educational outreach, particularly to the small practices, which are the target groups for the regional extension centers. Those are very difficult to reach, particularly in rural areas if you add additional travel issues and things like that. But nonetheless, I think it's important to reach out, identify what the issues are, what the barriers are. You may not pick up every single one, but at least you continue to reach out, look at how to develop with your state professional organizations, medical organizations, quality

improvement organizations. Okay, what can you do to actually improve and enhance that for that very group of practitioners?

M

But the regional extension centers are only going to touch a small percentage of doctors, only primary care, which is why the payers....

M

Yes.

M

Sorry ... but, I mean, seriously. I mean, if in fact, as most physicians believe and pharmacists believe that the beneficiary of e-prescribing financially ultimately are the payers, then the payers should have the responsibility to some extent to get in there and maybe provide this additional assistance and do the certification.

Steven Fox – BCBS Massachusetts – VP Provider Network Management

As a payer, let me at least make sure that we're on the record here. The benefit....

M

(Inaudible)

Steven Fox – BCBS Massachusetts – VP Provider Network Management

Well, we've done it, but I think also too, remember the numbers that I'm giving you are BlueCross Blue Shield of Massachusetts specific numbers. If we had every payer stepping up to the level that we have, I mean, I think that's a different point. But when we say that the payers are accruing the benefits, I mean, we have data. And a lot of people talk about data. We actually have the data.

The benefits, do the payers benefit? There certainly is, through formulary adherence, through cheaper alternatives for members, but everyone benefits. Members, by the way, we provide insurance for members through their employers. They save nearly a million dollars in copays. They benefit. So if it sticks to us, the ability for us to pass it back through is critical.

And also, the physician practices. It's one thing, you know, to the points Dr. Kaufman made. A several hundred-dollar prescription, I'm sorry, costs several hundred dollars. Well, if I'm paying you several thousand dollars, how much of a markup do I need to pay on that service for a doctor to adopt it? So we are putting a substantial amount of money on the table to get people to use it. And as you heard through the data, since 2004, we are still, this is before federal incentives, so incentives are a key. Payers are an important player. But ultimately everyone, physicians, as they adopt it through their own systems, need to step up as well and offset some of that by using it.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

Yes. As the ultimate, we have the largest private group in the state, as a state employee health plan, as probably is true in most states. I think we're willing to look at that since we're self-administered. Not self-administered, but ... TPA. So I think that's the discussion. It's got to be taken out of the RECs because those folks will choke on this if we're not careful.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

I just want to move us to Steven Stack, who has a question. Sorry about that. I just wanted to make sure that a lot of the committee members....

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

Sorry, Micky.

Steven Stack – St. Joseph Hospital East – Chair, ER Dept

Actually, I had a few things I'm going to rattle off real quick that are straightforward and before that, so I practice emergency medicine. And a different perspective in this a little bit is, you know, my payer mix, how would you like this for your business: 30% pay nothing, 27% are Medicaid, which pay so little, it costs more to bill sometimes it's laughable, and then Medicare another 15%. You've got 60% that pay little or nothing, or pay under the cost of service, then the private payers who make up the rest. It's very difficult at a time when the health system wants every patient bedded within 5 minutes of arrive to an ER and seen within 30 minutes of arrival.

Electronic prescribing, if these barriers are there, if you go and it doesn't make your life easier, it isn't going to happen, and it doesn't make a difference how much you incentivize us. But ironically, and I'm one of the 25% that may not be even eligible as an eligible provider for electronic prescribing incentives at all because I'm a hospital based physician.

The questions kind of come back to this. The DEA, haven't we moved past collaboration condemnation with the DEA? I mean, see here we have a criminal agency who is in the forensic nature of the system, and none of us are talking about that. We're talking about how do we care for a population. Talk about the paragon for a black box agency. They don't come out when the sun shines. When they do, they don't give any answers. They take your input, and then they give it back the way they're going to mandate it.

So the question in that, for Peter and for others, is a two-token or two-authentication process with a hard token and all this other stuff, it's not going to happen. Docs are not going to do that rubbish. So how do we, as the people in the United States – it's not going to happen. People are not going to carry that silly thing around and go doing that and go from hospital to hospital ... multiple staffs, in their own office. It's not going to work. How do we, as the people who care about delivering healthcare to our people, tell the criminal agency to stuff it and provide something we can work with?

Now let me get my last two little things out. Then the other thing is structure and codified stake in RxNorm, so two of the original six standards. Didn't we have some Medicare Modernization Act or omnibus bill a number of years ago that mandated by December 2008 those things were supposed to be finished? So why aren't those done yet?

Then the last thing is, again, just flow things. As an emergency doc, I have a catch me area that includes numerous, numerous counties. People drive 2.5 hours to come to the Mecca in Lexington, which isn't that big. If they say, send my prescription to Smith Drug Store, which is open 9:00 to 5:00 Monday through Friday in some county I've never heard of, you know, this is a real problem. If I hand them a piece of paper, they can deliver that wherever they want to and get it filled. If I have to now deliver to a specific destination that prescription, I'm just giving one other little example of the flow challenges here for identifying that. I guess the two questions are the standards and then the other thing I mentioned about the DEA.

Kim Dunn – UT School of Health Information Sciences – Faculty

I think one of the things that we need to change the discussion with the DEA ... and I think ... good position of things like SureScripts to be able to actually establish a surveillance mechanism, and I think that's a much more positive dialog to move forward with them and say, look. Let's put together. E-

prescribing could be a good tool because right now you can't find the boogiemán anyway. So why not think through this as an opportunity to improve surveillance mechanisms? I think changing the dialog with them could be a very good point of departure.

Just the second sort of thing related to the relationship between the medical home to the ER. Imagine that if you could actually, you were on a secure network. A patient that was part of a medical home was on that network, and you could actually then securely fax or whatever was within your workflow to make it easy to get it back to the medical home and have that conversation there because that's the real issue to deal with not just the little community pharmacy someplace getting it. It's an issue of communicating with that primary care practitioner in terms of continuity of information.

Jonah Frohlich – HIT at California HHS Agency – Deputy Secretary

Micky, this is Jonah. Can I ask a quick question over here?

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Yes, please.

Jonah Frohlich – HIT at California HHS Agency – Deputy Secretary

One of the issues that we're dealing here with in California has to do with some privacy and security issues with respect to various medication types. One of the issues, there's a lot of sensitive information that can be inferred from some kinds of prescriptions. Typically of that are medications for behavioral health issues and HIV.

I understand that a number of health plans have been providing prescription history through the legacy of the RxHub network, which is all part of SureScripts now. And many of our payers, some of our payers, our state included, are unwilling to provide that kind of medication history without a prior sort of consent, sort of an opt in consent from the individual patient. I guess this is for some of payers, either Harry or Steven, or others who presented today. Are you finding that there are issues either in various states or across the country regarding some of these very sensitive medication types and issues around patient privacy, and how have those been resolved if they are a significant issue in some regions?

Steven Fox – BCBS Massachusetts – VP Provider Network Management

Harry can jump in here. This is Steve Fox. It is a significant issue, and I think that one in our state that we have rules and guidelines that we follow. And I think that wherever there is right now unfortunately a lot of gray in some of the consumer advocate groups and some of the concerns around privacy. We opt to not pursue that line of information specifically around protected illnesses, such that you mentioned, as well as behavioral health. That is a gap. I mean, that is a challenge.

And I think, as Micky knows full well, I mean, we know, and those that are looking at the data know that they do not have a complete set of information on their patients. And so we have got to, to the points that Dr. Stack made earlier, as this evolves, we need to solve for privacy and security. But also, ultimately, what we're trying to do here is take better care of our patients in a way that the doctor ... until that gets resolved, I think it's very difficult for a single payer in a state to stand up and say we're going to go ahead and provide that. We are not allowed. We do not, and so we stand by.

Harry Totonis – SureScripts – President & CEO

Yes. Obviously, as most people know that SureScripts provides medication history to prescribers. We also provide it to hospitals for ... we also are working collaboratively with a couple of the HIEs to address how we're going to make that happen going forward, and we're also looking at all the patient consent

issues and address those issues, but we haven't finished looking at it. In the meantime, we are providing it to prescribers, obviously, and hospitals.

Peter Kaufman – DrFirst – Chief Medical Officer

With our application, we do ask the providers to click that they have checked with the patient, and it's also part of our end user agreement, licensure agreement. But, unfortunately, the medicines that are being withheld, especially in some certain states, are the most important medicines to know about. They have a tremendous number of interactions with other medications, and it's a real safety issue. And, as a practicing physician, you know, even if I were a dermatologist, if I was prescribing a medicine, I need to know those medicines.

Now maybe we can come up with a way to have them hidden behind the program to say there's an interaction to a medication that's being hidden. Please discuss with the patient or something of that nature, and maybe that's a standard we need to come up with. But I think that the people who are really concerned about this privacy issue are very vocal. The people who are a little concerned about this privacy issue and may be less vocal could probably be convinced if they understood the importance of it and that the person that you're going to see is a physician who is treating you for a medical problem. The safety issue should trump the privacy issue in this case.

Can I quickly respond to Dr. Stack? In terms of the ... we too felt that, and we would very much like to not require a hard token with the DEA, but it's been very well accepted by our doctors in Massachusetts. In fact, we make them put it on their key chain. I have a crypto key here on a key chain so that they don't leave it home by mistake or leave it plugged into their computer, but we've tried to make it very easy to use. They can plug it into their computer, leave it in the computer during the day, and the signature is no different than their regular signature for a prescription. We have them individually sign for every batch of prescriptions, so if the crypto key is in place, it's all transparent.

In terms of the structured and codified ... they're not ready yet, and we're testing the codified ... again, it's just not ready. It doesn't cover enough prescriptions, and it left too many places that were frustrated, so we're going to send it back to NCPDP, which means another year until we get it right. I originally tried to do the 80/20 rule, but then it got overruled in the committee, so we're now probably going to cover about 99% of prescriptions.

In terms of the pharmacy in rural Kentucky, if you get a medication history back from SureScripts, it's going to include where the patient had their prescriptions filled, or from the RxHub side or the pharmacy side. And at least with our application, we feed that in. If the patient doesn't have a default pharmacy where they get their scripts filled, we'll automatically fill the default pharmacy, so it makes it pretty easy to e-prescribe when you have the pharmacy already available. You can ask the patient, do you want it sent to Joe's Pharmacy in Paducah.

Steven Stack – St. Joseph Hospital East – Chair, ER Dept

That was 30% Medicaid that I mentioned whose....

Peter Kaufman – DrFirst – Chief Medical Officer

I did mention getting more history from Medicaid is a primary concern, and that is something that this committee might be able to push.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

I think we're out of time here, so thank you very much. Sorry, Paul.

Paul Egerman – eScription – CEO

Is there time for me to ask one quick question?

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Yes. Sorry. Go ahead, Paul. If you could do it quickly, that'd be terrific.

Paul Egerman – eScription – CEO

Okay. I hope it's a quick question. The question I had for Harry about SureScripts, it seems like SureScripts is like the dominant vendor, and my question is, as e-prescribing expands, should we be concerned that SureScripts is becoming an organization that is too big to fail?

Harry Totonis – SureScripts – President & CEO

That sounds like, have you stopped beating your wife question, right?

Paul Egerman – eScription – CEO

It's not intended to be. I'm very seriously concerned about this issue.

Harry Totonis – SureScripts – President & CEO

Yes. I mean, seriously, we take our role and responsibility working with the ... e-collaborative with other vendors very, very seriously. We spend a significant amount of money and effort to make sure that that does not occur, but there are other networks out there on e-prescribing that we also work collaboratively. I think we are very comfortable in guiding the forward on the e-prescribing.

Paul Egerman – eScription – CEO

Great. Thank you.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

One final thought, and I didn't turn to Deven and ask her if I could say this, but I'm thinking through these privacy things. I think one thing that maybe we want to have as a suggestion for the privacy workgroup that Deven does in her free time is this question of the alignment of the information flows, as it relates to state policy. Just to put a fine point on it, what Steve was raising, in Massachusetts, the health insurers are not allowed to release certain types of prescription information, and so they don't when the claim is paid for that. But any physician in the state can get on their device or their EHR and do a dispense drug history and get all that information because it was dispensed. And the payers aren't getting the information about the claim paid, but the chain drugstores are getting the information because it was dispensed, which is a gray area, as Steve pointed, about is that legal or not in Massachusetts. I think every single state has its own weird anomalies around that. So that may be something to add to the agenda. I know it's a small agenda right now. Anyway, thank you very much.

Deven McGraw - Center for Democracy & Technology – Director

...come up ... put your name cards out. Thank you very, very much to our first panel. I think everyone is here. We'll let folks get settled. Great. The second panel is, again, this is our second adoption successes and challenges panel. We've got one fewer panelist than in our first panel, which was pretty well packed, so we'll go with the same. We had initially told you five minutes, but we'll give you five to seven. I've been using my iPhone as the timer here, and I'll try to do, as Micky did, and give you a little sort of one minute warning when we're sort of drawing close to that, and then we'll open it up for questions.

Why don't we go ahead ... Casey Kozlowski? Did I get your name right?

Casey Kozlowski – Walgreens – Manager for Healthcare Automation

Very good. Yes.

Deven McGraw - Center for Democracy & Technology – Director

With Walgreens, why don't you go ahead and start?

Casey Kozlowski – Walgreens – Manager for Healthcare Automation

Yes. First of all, thank you very much for allowing me to be here on behalf of Walgreens. My name is Casey Kozlowski, and I manage e-prescribing for Walgreens' 7,000 retail pharmacies. But, more importantly, I'm also a pharmacist and it wasn't so long ago that I was in the stores filling prescriptions every day, and I still try to get out there as much as possible and work a few shifts and make sure I don't get too rusty.

Morgan has been a key player in electronic prescribing since the early 1990's when we rolled out one of the first electronic prescribing applications in the industry called Prescribe. Unfortunately, Prescribe only worked for Walgreens' pharmacies and patients, so adoption/utilizations by prescribers was less than optimal. But it did prove that electronic prescribing was possible, and it paved the way for the future of e-health.

In 2001, Walgreens was instrumental in forming SureScripts, along with the National Association of Chain Drugstores and their other chain pharmacy members, and the National Community Pharmacist Association, which represents independent pharmacists. The goal of SureScripts is to provide pharmacies with a single, secure, point of connection for e-prescribing to physicians. Originally, that role was only in sending and receiving electronic prescriptions and refill requests, but now includes other services such as PBM and Rx history messaging. And this will likely grow even more in the next few years, as new message types are developed such as electronic prior authorization, clinical care messaging, change Rx, which allows the pharmacy to send a message to the doctor regarding a prescription, and cancel Rx, which allows the doctor to cancel or discontinue therapy.

Today Walgreens' pharmacies fill more than five million electronic prescriptions each month, making us the industry leader. Over 23% of eligible prescriptions are sent to us electronically, which is phenomenal considering a year ago this number was closer to 10%. In 2009, 44 million eRx's were filled by Walgreens' pharmacists, and we expect almost double that number in 2010. I hope to more than double it. Federal incentives and mandates are only helping to push the needle with providers, and it's my opinion that 2010 is going to be another record year for electronic prescribing.

Walgreens also participates in SureScripts' retail electronic medication history service where physicians can access a full pharmacy medication history profile to be used for more informed prescribing or in a hospital setting for medication reconciliation. Pharmacy data tends to be more robust than PBM data, as it includes non-covered drugs, as well as those that were filled via workers' compensation, drug manufacturer coupons, or state Medicaid. Pharmacy data also contains directions for use, a field that's missing from PBM data, and only contains prescriptions that were actually picked up by the patient, given the doctor a more accurate view regarding compliance and replacing the need for Rx Fill, which pharmacies have been slow to adopt, and which physician demand has not been great.

Electronic prescriptions have many benefits to pharmacies, physicians, and patients. I probably don't need to tell you that electronic prescriptions are safer by providing the physician with more information at the point of prescribing such as drug interaction to allergies, etc. or that pharmacies like electronic prescriptions because they're legible and complete. It's probably a good point to throw in here that at this time we have not seen or heard of higher error rates with eRx's, but I kind of agree with the statement of

what defines an error. And I'm sure we'll get into this in the Q&A again, but there are issues with the current standards.

We do see stuff such as a new prescription being sent in response to a refill request, but I don't know that I would constitute that as an error. I think anything that doesn't cause an issue to the patient should not be considered an error. Something that just requires a little bit of extra effort on behalf of the pharmacy, I think, is just sort of growing pains, as we sort of ease our way into more adoption in this. But I won't go into that too much at this point.

And patients also like electronic prescriptions because it saves them time and an extra trip to the pharmacy. In fact, last week, I went to my pediatrician's office. He gave me a paper prescription, and I almost screamed. I was like, now I have to go to the pharmacy twice with a baby in the back, so my general practitioner uses e-prescribing, and I love it.

Pharmacies also like electronic prescriptions because they're cleaner than paper scripts. By clean, we mean an Rx with fewer issues such as third party rejects or drug interactions being sent to the pharmacy. Since the physician has access to medication history and insurance formulary benefit information, they're better able to make an informed prescribing decision, which leads to fewer issues down the road.

Patient compliance is one of the not so obvious benefits of electronic prescribing. It's been estimated that 20% to 50% of Rx never even make it to the pharmacy. These prescriptions are in the bottom of the person's or kitchen drawers somewhere doing the patient no good at all. We were part of a study that showed that once a practice gets eRx enabled, 11% more of their prescriptions get filled, which makes sense because 100% of eRx's make it to the pharmacy. But more importantly, these scripts were also picked up at the same rate as regular prescriptions, which bolster patient compliance and, therefore, proper care.

But as with anything, e-prescribing has its challenges. The absence of RxNorm, which assigns a unique ID to each drug and allows for specific drug selection in the pharmacy system and codified ... with translates to Rx directions for use into a standardized format means that pharmacy has more data entry to do, as both the drug and directions fields are currently free text. However, perfect is the enemy of good, and we still see substantial time savings versus paper prescriptions, making these standards more of a nice to have rather than a must have for pharmacy today.

As I'm sure you're aware, we also need to keep working with the DEA to remove the ban on controlled substances being sent electronically. More importantly, this needs to be done in a way that is workable and achievable at every point of care.

In conclusion, Walgreens looks forward to continue to be an active participant in the adoption and utilization of electronic prescribing. Thanks.

Deven McGraw - Center for Democracy & Technology – Director

Thanks, Casey. Next we have Virginia Halsey from First Databank.

Virginia Halsey – First DataBank –Product Management Director

Hello. I'd like to thank the committee for the opportunity to provide input today. My name is Virginia Halsey, and I'm product management director with First DataBank. I have 22 years of experience working with integrated drug databases and their users.

Since First DataBank is a little different than many of the other entities that are represented today, I'm going to spend a minute to describe what it is in case people don't know. First DataBank provides integrated drug data that is built into systems throughout the healthcare continuum, so we don't have applications or user interfaces. We're inside, and we're inside of many EHRs, many inpatient CPOE systems, hospital pharmacy systems, retail pharmacy systems, payer systems, and also e-prescribing systems.

Our content represents formulations of drugs, appropriate doses and routes, allergies, potential interactions, and adverse effects. The content is used for recording and encoding patient medication history and prescriptions, as well as a range of clinical screening and medication decision support. Our mission is patient safety, and we have been fortunate to work with and learn from some of the pioneers in CPOE and other clinical systems.

We agree that e-prescribing has made significant progress over the last few years. The infrastructure is now in place with SureScripts, and there is the script standard for national council of prescription drug programs. Many of the prescribers who we interact with cite benefits such as renewing prescriptions remotely and gaining access to a more comprehensive picture of patient's current medications and history.

However, as expected at this early stage in the evolution of e-prescribing and medication reconciliation, there are also a number of challenges to be tackled. Here are some of the key challenges we have observed. Interoperability: Once RxNorm is vetted in real life scenarios for exchanging drug information amongst systems, many interoperability challenges may be alleviated. But it is imperative that RxNorm be tested in live conditions.

Exchange of patient allergy information remains a challenge in today's environment, especially for allergen groups such as when a patient is allergic to sulfa or penicillins. As stakeholders collaborate to address this gap, our clinical colleagues urge the participants to insure that the resolution is specific to allergy and not repurposed groupings for another purpose such as therapeutic classification.

Hazards of free text: The use of free text undermines both immediate and long-term benefits of e-prescribing. Electronic prescriptions with free text components compromise clinical screening and decision support. For instance, screening a dose to insure that it is appropriate for a pediatric patient is difficult if the unit of measure of the dose and the frequency and the directions cannot be interpreted and used in calculations. Similarly, free text data interferes with formulary compliance and switching to generics. In the longer-term, free text components will compromise the rich data that electronic prescriptions can offer to the body of evidence on outcomes.

Alert fatigue: One of the widely acknowledged usability challenges is the problem of over alerting, which can lead to important information being overlooked amongst less relevant alerts. Some might find it unusual that First DataBank is commenting on this topic since sometimes this kind of issue is attributed to us or our fellow compendia. However, judicious implementation makes a big difference. Based on our extensive experience interacting with clinical users, flexibility in implementing medication screening and rules is critical. Not all messages should be displayed in the same manner, and not all intended as interrupt style alerts. Some messages are more appropriate as information accessible by an info button type format.

Also, manufacturers include far reaching warnings in their drug labeling for liability reasons, including those with little evidence. These warnings exacerbate alert overload and frustrate clinical users. Again, users need flexibility in their applications and databases to manage these cases. We find information in

drug labeling would be helpful in ameliorating the situation as well. If test cases are developed for certification of systems, we want to point out a lesson learned from a nongovernmental certification effort. Test cases for lower significance alerts may be problematic, even to advanced implementations.

Usability: Usability issues can undermine user satisfaction and the goals of e-prescribing. For instance, physicians have reported frustration with the 140-character limitation for transmitting prescriptions. This is not adequate and can pose a patient safety risk, especially for multipart orders like a steroid taper. Lessons learned in the inpatient environment dictate that physicians should only be required to enter information that is appropriate to their domain and not that of the pharmacy. They should be able to create prescriptions using familiar physician friendly conventions and concepts. For example, pediatricians need to be able to order in weight-based doses and benefit from the convenience of automated calculations.

Communication: One of the benefits of e-prescribing is the reduction of clarifying phone calls between pharmacists and prescriber. In order to avoid many of these phone calls, pharmacists will need to know that a prescriber was aware of a particular alert and if it was consciously overridden. For instance, a message can communicate that an allergy alert was overridden because the patient is tolerating the drug, or that a potential severe drug/drug interaction will be monitored.

DEA: We echo the sentiment of other panelists regarding workflow issues for handling of DEA scheduled drugs. Specifically, we hear from many of our customers about the difficulty of handling the differences in DEA status between different states. We would like to thank the committee once again for the opportunity to contribute to the discussion today. Thank you.

Deven McGraw - Center for Democracy & Technology – Director

Thank you very much. Next on the panel, we have Jessica Kahn with the Centers for Medicare and Medicaid Services, or CMS.

Jessica Kahn – CMS – Project Officer

Before you hit your start button, I have to make a comment that's a little bit beyond my testimony, and that's to say there's been a lot of discussion so far, and especially on the panel to come after us about meaningful use and how this interacts with meaningful use. I would just like to make sure everyone understands that any comments submitted here are not a substitution for formal comment submission to our regulation. And I went through the trouble of reading a lot of what people submitted this week, and it was a very impressive, thoughtful body of work. And I would really appreciate in making a plug that you would take what you wrote and upload it, which is all you need to do, so it's very easy, to regulations.gov so that we can have a formal process of acknowledging all of your thoughts and comments. Thanks.

Deven McGraw - Center for Democracy & Technology – Director

Thanks, Jessica. That's helpful.

Jessica Kahn – CMS – Project Officer

I'm going to be the voice for Medicaid today. However, no Medicaid bashing allowed. Because I work at the federal level, and it's a state and federal partnership, there are a lot of particularities in talking about Medicaid, so I'll try to point out where I'm making a generalized statement and where we've got some state specific issues.

One of my roles at CMS is the project officer for the Medicaid transformation grants, which was \$150 million authorized out of the DRA, and the majority of which went for health information technology. So a lot of what I'm going to talk about will come from state Medicaid agencies that have implemented e-

prescribing as a result of those grants, Tennessee and Florida notwithstanding.... That's an important point because we're talking about – and I'm skipping right ahead to the business case.

They got grant money, 100%, no federal match grant money with which they could do a lot of things that they can't do under the normal state Medicaid rules or MMIS, Medicaid Management Information System Funding. For example, in Tennessee, they're able to offer PDAs or hardware or notebooks to rural prescribers as an incentive for them to use this. The same in Florida, so there's a little bit of an opportunity there. On the flipside, the grant money is now gone, so if that was truly key to adoption was that ability to pay for a contractor to go out.

And in Tennessee, I understand they went literally door-to-door and spent quite a bit of time with some of these rural providers. How do you sustain that ongoing? That's quite beyond, I think, what the capacity of a REC is. And, in many cases, these were small and solo practices. And, frankly, it was effective. So now what do we do? It wasn't about so much the hardware. I think Dave could disagree with me, but I think it was that personalized TA who went from place-to-place and talking about provider readiness and assessing their system and talking with the small and local pharmacies. And so now we know that that works, how do you sustain that?

Not to mention, in many of the Medicaid agency cases, they offered it for free because they perceived rightly so that costs would be an impediment to adoption. Again, the grant is gone. We live now in the world of incentives, but that's not necessarily enough, and it doesn't apply to everybody, as we've now already discussed. So what happens to this sort of public utility free model that a number of Medicaid agencies have stood up for their providers, and how are they going to maintain that under HITECH?

I won't go into the small and independent pharmacy barrier, though I will say that it has been duly noted by Medicaid as well. Many states have noted that. One of the creative solutions that I have seen, though it's still in draft, so I should have noted that in my comments, but one state is looking at increasing, through a state plan amendment, their pharmacy's dispensing fees, recognizing that there are costs for participating in e-prescribing. I'm going to get to sort of talking about the impact of e-prescribing, I mean, the integration of e-prescribing with provider payment policy because we're talking about incentives. But when you're talking long-term, you need to think about recognizing providers' ongoing cost for the work they do, which now includes HIT as an ongoing cost for their work.

Furthermore, one of the issues that's facing Medicaid is they built up these systems in several of these states. They actually populated it with formulary data for everyone, but that's only for Medicaid, so now providers aren't going to want to log into one system for Medicaid and another system for BlueCross Blue Shield, and another system for whoever, so that's a problem. A few states like New Mexico, Connecticut, and Delaware have sort of done a vendor neutral approach where they'll just publish their information, which it's an interface that will work with whichever e-prescribing system that's out there. In those cases, they also did look at the incentive issues.

But now given the HITECH legislation, what about the sunk cost we have a federal level for just these standalone e-prescribing systems? How do they get integrated into EHR so they become meaningful? As the project officer for those grants, I'm particularly interested in what happens to homegrown systems and those that do not meet the full EHR requirements.

How are providers going to feel about having to learn these new systems? We've talked about workflow barriers, so here we had some states put a lot of time and effort into addressing those workflow barriers, and now they're going to have to basically redo it in order for those systems to be certified for meaningful use.

I'm not going to talk about the DEA except to say ditto to what everybody else said, but I wanted to follow up on a comment that Jonah made about state specific privacy laws. This has definitely come up for Medicaid. It's come up in several states where they're not allowed by state law to talk about HIV or behavioral health or a number of other medications.

From a Medicaid perspective, that's a lot of our patients, so that's particularly, equally I would say, on par with the DEA barrier for a lot of Medicaid providers, from what we're hearing from the states. And the only remedy for that, frankly, is to revise state law, and everybody knows how challenging that is. And that's not something, that's not a lever really that CMS has at its disposal.

Now I want to talk about, one of the questions was about how to facilitate broader and easier adoption, and I think we're talking about the EHR incentive payments. But I want to talk about linking use of e-prescribing to provider payment policy, and that's integrating into the reimbursement that a provider gets an increased amount, recognizing that there was a cost for e-prescribing or for electronic health records, for that matter. It's not necessarily unique just to e-prescribing, but this is about value based purchasing. This is about saying, and I think that this is what Mr. Fox from BlueCross BlueShield was getting at. They recognized that they provide better care, and their providers do a better job when they do certain things, whether it's medical home or whatever other pay for performance criteria they have, and so e-prescribing electronic health record use could be considered under that paradigm as well. And many states are adopting a per member per month model for medical home, which includes HIT, so I think this integrates with a lot of other issues that we're talking about under healthcare reform and so on.

Best practices that we've heard from the states in terms of promoting adoption also having to do with not giving short ... to the administrative streamlining. A lot of providers are very happy if ... automated preauthorization built in. It confirms eligibility. It can do the electronic claims billing, so any of the things that will help shorten their headaches for administering their programs in outpatient settings has enhanced the appeal, we are told, of their processes.

I'm interested in this question about detecting – well, actually, in general, just about adverse events in e-prescribing. It's often touted as one of the things that e-prescribing can do. And I was on the plane next to a guy from the FDA, lucky me, who was like, oh, we really want your data, CMS. We want to know, as part of our surveillance system ... drugs out there, are there adverse events, but that's very hard to define most of the time, and folks in the vendor community can correct me. But most of the time it's not necessarily tracked by the system. Near misses, yes, but not necessarily actual adverse events.

I would just say I'm not going to repeat the things that people have already said, except to say that Medicaid is not unique in terms of workflow issues, in terms of affordability, and particularly in rural areas. We have bandwidth problems, broadband access. I wouldn't want anyone to underscore how important that is for rural areas. And I would say that we've already started to see results. Florida Medicaid, for example, reported \$2 million in savings when they implemented their e-prescribing, Mississippi one million dollars, Delaware is seeing steep cost reductions in automated preauthorizations and better adherence to their formulary and to generics. I think, from a payer perspective, it's definitely a win/win. Then on the Medicaid side, we're also, of course, interested in the quality of care piece and how it's linked to EHRs. We might be able to capture some of that data.

Deven McGraw - Center for Democracy & Technology – Director

Thanks, Jessica. Thank you very much. Our last panelist is Dr. Jacob Reider from Allscripts. Thank you.

Jacob Reider – Allscripts – Chief Medical Informatics Officer

Thank you, Deven. I rehearsed my comments this morning in my hotel room, and they're 4 minute and 52 seconds, but that was before they became chicken scratch, so this is the benefit of going last is you know what other folks said, but the burden is that you're tempted to comment on most things that have gone ahead. So I'll give a quick intro, and I'll try and make my way through my chicken scratch in maybe 5 minutes and 52 seconds.

I'm a family physician so, like Peter, I wear two hats. Since I don't have much hair, my wife noticed that I wear hats more often these days, usually Red Sox hats, for the record. So, as a family doctor, I work in a two-physician practice, and I can say that 100% of my partners use e-prescribing. And so, in that role, I collaborate with patients to enhance their health.

One of my former roles in life was that I was an associate dean of biomedical informatics at Albany Medical College where I think I tried to collaborate with physicians to enhance the health of a community, and specifically to work on how health information technology could do that. Now, as CMIO at Allscripts, I collaborate with even more physicians. About 150,000 physicians use Allscripts systems today. And my role there is to extend that collaboration to enhance the health of an even greater community.

Allscripts manages roughly, at this point, almost eight million electronic prescriptions every month, so a fairly good percentage of the number that Mr. Totonis mentioned earlier are from our system. That's from one of our four SureScripts certified electronic health records, and from our standalone electronic prescribing platform. I am not the e-prescribing guy. I am the CMIO, so my role spans all of our clinical products, and e-prescribing obviously is one of them. So forgive me if later when you quiz me, I don't have all the data on e-prescribing, although I do certainly, as an end user, and as CMIO, I have a lot of exposure to it.

My attributes are that I'm a passionate idealist, and I think that health IT can be a central component of the health of our healthcare system. And I'd like to introduce a bit of a model for how I look at health IT and how I look at prioritizing initiatives because I think e-prescribing is a great example of why there are some initiatives in health IT that should be highest priority, so forgive me again for the detour into left field here. Priority, $P = \text{value} / \text{work}$. They joke back at the ranch that this is rider's rule.

But it's really stolen from Dave Slawson and Allen Shaughnessy. Anybody who has studied evidence-based medicine knows that their usefulness of medical information model $U = \text{value} \times R / \text{work}$, value, times R, relevance, over W, work, the work that it's going to take for me to acquire that knowledge. Two paragraphs in *Journal Watch* might be a lot better than reading a 12-page paper in the *New England Journal of Medicine* for me as a primary care doctor.

By the same token, something that's very valuable to my patients, to the community, the physicians, and takes rather little work to implement will become very high priority. By the same token, something very expensive or very difficult, W gets higher, P gets lower, so I just wanted to introduce that because that's how I think about this, and I think it's a good framework. As you see from my chicken scratch on my notepad here, I need framework to help organize the way I think.

If we think about the participants in the e-prescribing process and the series of events, we have patients. We have payers. We have pharmacies. We have providers. We have IT vendors, and then we have the infrastructure providers such as SureScripts. I think all those pieces, we can look at the relative value and the relative work, and think about how we can enhance value, and how we can reduce work, so that should be our primary, as I think about primary method with which we try and attack this problem. Let's start with patients because I think we've had some good examples today of how patients can have their

lives enhanced. Certainly safety is an important one, and our discussion earlier about errors, I think, is fascinating, and I'd like to comment on that in a bit.

But what are some easy, so where's the low hanging fruit? Where can we reduce the work on patients? I think Casey mentioned one earlier, right? It's one trip to the pharmacy instead of two. If we look at the workflow, take a piece of paper. Drop off with baby at pharmacy. Wait or come back. How likely is it that, A, that piece of paper gets there? How likely is it that, B, we actually come back for it? So we can reduce that by getting it there directly.

What about easy pass, and I'd ask the pharmacist maybe to comment later. Are there things that we can do that make it even easier for patients to get their stuff at the pharmacy? I drove from Chicago to Albany, New York, last week for my daughter, extracting her from college, and we didn't roll down the window once, right, and we paid about \$25 in tolls that whole way. So how can we do the easy pass or the fast pass thing, which is the analogy for the Disney World attendees?

Is there a lower copay? Steven Fox mentioned the copay is lower. I guess I'd ask, is the copay lower because the doc chose the formulary drug and, therefore, the copay is lower, or is there a lower copay if it was e-prescribed? That could motivate patients to say, like Casey did, hey, doc? What's with the paper thing, because you know it saves me \$2 to get it electronically prescribed, and then the doc, who always wants to satisfy her patients, will be motivated to look into this electronic stuff a little bit more.

How do we motivate? Those are two silly examples. I'm sure there are 47 more. How do we motivate providers? I think we've talked about some of the methods of providers. Safety is very important and key, and I think Peter earlier mentioned the efficiency myths, so it can be very easy to e-prescribe, but I think we've heard about some of the selection errors. And I think Virginia made some very good points about the experiences that we've all had in hospitals. CPOE has been around for a long time, and there's actually been very good research on CPOE and the different errors, and so we've heard that. There are errors with electronic entry of information, but they're different. So when I can write for a brand name because that's what the drug rep taught me to do for 12 years, but now I'm in electronic system, and there are 43 choices of penicillin for me to pick, which is the one that I should pick?

The big one is erythromycin, right? The docs notoriously don't know which erythromycin to choose, and how can we, as vendors, and I think it's a great point, Virginia. How can we make that much easier for them and use words that they're accustomed to and map those because, in hospital settings, that's exactly what's done. I don't know the difference between one of the 17 different kinds of chest x-rays that's appropriate for this patient.

Yes, one minute, and I'm half way through, so I'll shut up now. So let's focus on some of the stuff, and so this is my pitch as the vendor, so I've got my vendor hat on. I think I've been a doctor for the other seven minutes. When people tell us exactly what to do, it constraints our flexibility, and so you'll see some of this whining in my written comments, but I want to harp on it a little bit here. So if you say, put up an alert that's purple that says such and such, you're very prescriptive about exactly how I solve a given problem, and so I guess I would caution folks, as we think about how to enhance the likelihood that say things like alerts will happen. Maybe we don't focus on the how so much as the what. And the what would be fewer errors. And if we, the vendors and the docs, are also part of that solution in looking at how do we reduce errors, so how do we reduce callbacks. And if that's a metric against which we're measured, and errors in general are metrics against we're measured, not necessarily just medication interaction errors, I think we might actually be better off because then we'll be focused on the goals rather than the milestones on the way toward the goal. That's it for now.

Deven McGraw - Center for Democracy & Technology – Director

All of you will have an opportunity to get more points in during this question period, which is always how it works. Thank you all very much for that. I'm going to start on this side this time, and we'll work our way around. We have a good amount of time here, so go ahead, Steve.

Steven Stack – St. Joseph Hospital East – Chair, ER Dept

Thank you, everyone. Jessica, I can promise no Jessica bashing, but I can't promise no Medicaid bashing, but not to bash Medicaid, but to comment on this. I think, not just for Medicaid, but for all the other classes of payers is the flawed premise that compensation alignment will overcome flaws in barriers in the system. That you can say, doctor, I will not pay you if you don't do this, that that overcomes the fact that the DEA is a barrier. That that overcomes the fact that Medicaid doesn't release information on HIV drugs and psych drugs, which are really essential to the system working because those are some of the people who most need the benefit of that.

For the rest of the audience here, it's a big point. You cannot change alignment of incentives and expect a physician, if you believe in any kind of an efficient market theory, to somehow say I guess other barriers don't exist. And so that's a problem with the logic that I think a lot of people are using.

I do have a question for the group. Do any of you think, with respect to electronic prescribing and then broader maybe for meaningful use, that we've gotten it wrong the way we've structured this? That we're trying to roll out all of the benefits for all of the nation's people all at the same time kind of give birth to the baby fully born and fully matured as opposed to perhaps trying to target those benefits to the 10% who cost 60% of the healthcare dollar? Wouldn't it make more sense perhaps if electronic prescribing were available specifically to people who use controlled substances a lot for which there's a big issue with diversion and abuse and problems so that we could better track that information? Or, said a different way, that we focused on the people who are living in acute care hospitals 30 to 60 days a year rather than the 27-year-old who goes to their family doctor once a year for a routine pap smear or just a routine checkup? That perhaps that 27-year-old doesn't really need those benefits quite the same as a 35-year-old insulin required diabetic on 7 prescription drugs?

My question is, have we gotten it wrong in the way we've constructed these incentives and constructed the meaningful use? And then just any comments back on the value based purchasing thing, you know, or it won't overcome those things. In the Medicaid instance, you actually have to pay to demand more value, and it's a problem because I think that physicians feel they already donate quite a lot to society and even agreeing to accept Medicaid as a payer class in their practice. Thank you.

Jessica Kahn – CMS – Project Officer

I'd just say one of the things that we see as our role at CMS is not necessarily identifying one solution, but looking for the various different levers to achieve the goals, so I would say that talking about payment policy reform is just one of many levers. It's certainly not meant to be a panacea. Neither are the incentives. Neither is meaningful use.

And I actually would agree about the targeting effort. This is what we saw in the state ... laboratories for the transformation grants. They focused on their high volume providers, their safety net providers, their rural providers, and that was the premise that we supported. And I actually think that that's probably the intent of Congress putting a 30% patient volume rule on the Medicaid EHR incentives as well because you're not getting it to everybody or somebody who has one patient. You're trying to find people who spend the majority of their patient load or patient encounters, as proposed in the NPRM, for Medicaid patients who are elderly, disabled, children, people with chronic disease, and so forth. So I think that's part of the motivation there. That said, nobody is going to probably adopt the system just for 30% of their

patients. If they're going to put the money into it and work on it for Medicaid, the thought would be then they would – the rest of their 70% of their patient load, you know, the boats will all rise with the one tide, but I do think that's part of the patient volume threshold, problematic that it may be.

Virginia Halsey – First DataBank –Product Management Director

I wanted to comment as well on trying to implement for just a targeted set of patients. It seems to me that the 27-year-old might be more of the fan of the e-prescribing, and might really enjoy it and urge the physician to actually adopt. The prescriptions might be easier to actually enter and transmit. And I would say that as far as stage one goes, I don't think we're overreaching. I don't think the baby is fully born at all with just stage one. I think it's reasonable. Five clinical decision support rules, allergy and drug/drug checking are pretty reasonable.

Casey Kozlowski – Walgreens – Manager for Healthcare Automation

I would actually agree with the other panelists and say that that 27-year-old could be the diabetic in the future, and wouldn't it be nice if we had medical records going back to when they were a healthy 27-year-old, electronics that are easy to access, no matter how many times I move, etc.

As far as e-prescribing, obviously we are, as a retail pharmacy, e-prescribing is really where most of our chips are in that basket, and obviously we're just pleased as punch that that's part of meaningful use. But I think there is a lot with meaningful use, and I guess part of – kind of coming in neutral because meaningful use and these incentives really don't affect pharmacy all that much. I think it's sort of a one shot for the government, right? I mean, they're not going to get this money in the future to be able to say, okay, now meaningful use is something more. I think they need to make it robust in the beginning. I mean, this is extra money. This is supposed to spur adoption, spur meaningful use, obviously. I think it probably behooves everybody to have a more robust definition there because this might be the only shot that we get to do this and do it right.

Jacob Reider – Allscripts – Chief Medical Informatics Officer

Is that a softball for me to use my little formula, Steve? You've identified the highest priority populations, right? So the greatest value for these populations with potentially lower work or the same amount of work, but these populations are highest priority.

I think that having two systems, if we focus on only a subpopulation, the problem is you can't really get adoption. We've heard about problems at the pharmacy level, pharmacy at provider levels, even getting us, the vendors, to really engage and embrace this, it's going to be hard to do.

An analogy I sometimes use is I don't think too much about how my recipient is going to receive a letter that I put in the mail. Are they going to get it from a post office box? Is it a rural route? I don't have to think about that. I don't have to think about what kind of house they have or what their medical insurance is.

I think the same needs to be done here. If we're really going to get something right, we're going to do it, period, and so this needs to become part of the infrastructure. Just like electricity, this is how one does things. I would bet, five years from now, most physicians will prescribe, and they won't even think of it as e-prescribing, just like we know in education, there's a lot of e-learning going on, and it's not even e-learning anymore. It's how people are educated.

Deven McGraw - Center for Democracy & Technology – Director

Do you have any follow up?

Steven Stack – St. Joseph Hospital East – Chair, ER Dept

No, just a thought that, as I said, you know, I actually am a strong supporter for this stuff, despite my comments. The challenge becomes, for some of this, again, and I have my own life. It colors my comments. I'm an emergency physician. I'm in a health system that's determined that the economic value equation speaks against trying to comply with meaningful use right now because it would ruin the bond rating of the hospital because they can't afford to put other things on hold to take out the loans for this.

I take care of a dyscoordinated patient population who shop from emergency department to emergency department, who don't use their Medicaid primary care provider because it's more efficient to show up for me for unscheduled care whenever they want to for whatever concern. And I take care of a ... sicker population who, through no fault of their own perhaps, are high utilizers of healthcare services, some of whom, through their own fault, consume more than they need to. And I am specifically in a situation where despite the good intentions of the government and perhaps private payers and my health system, who I don't think says we wake up every morning, we want to hurt people by not adopting technology. I think that this is a pragmatic business choice.

I am in that subset who is in a very information poor situation where the stakes can sometimes be very high, on very rapid, short timelines. And I will not see this benefit in the next few years despite all the good efforts. And I do think, in these workgroups that we're part of, I have yet to come across the person, I'm on two of them, where I've met the vindictive, spiteful, manipulative person. Everybody really sounds like they're coming at this constructively. How can we identify the problems and really work through this?

I'm a real proponent for this stuff. I just am thrilled, over time, to see that more of the realities of the implementation are coming to the floor, and these are the things that have made it not take off earlier on their own without this kind of effort. Thank you very much for that disclaimer.

Jessica Kahn – CMS – Project Officer

I have a request. Could you make sure that your hospital's leadership has read the NPRM and the terms about adopt, implement, and upgrade in their first payment year for Medicaid and not meaningful use because it's a lower bar on purpose. And it's for hospitals like yours to be able to participate and not have to meet the meaningful use bar right away, so I think in it you would be a champion back in your facility. That would be great.

Jacob Reider – Allscripts – Chief Medical Informatics Officer

I'll echo from a business perspective, so we, Allscripts has an ED product, and our ED product currently does not do e-prescribing. And the reason is, our clients are not telling us that they will pay us for that. And so putting that into our development plan, so being the business guy now and not the doctor, interacting with the folks who run our ED product, they don't have a business case to spend the development dollars, which are not insignificant, to get this functionality into that product. So it's very interesting to hear, so you're validating what we experience too. Will that get there? Sure. But I think, to maybe your overall point, we are not adequately incentivized to do this, perhaps because you are not adequately incentivized to do this. That's the ball that rolls downhill.

Deven McGraw - Center for Democracy & Technology – Director

...go ahead, Jason.

Jason Brown – Epic – e-Prescribing Lead

One of the things that I think you brought up, and I think would tie back into those areas is one of the ways that prescribers could kind of self correct errors is to cancel workflows and some of these additional

message types. But the cancel workflow currently, I think, for a prescriber has more of a chance of causing more errors just because it's confusion to them. They cancel it in their EHR of choice, and it's not always clear whether it got there, whether the pharmacist saw it in time. For anyone, what are the biggest challenges there? And what are the next steps to improving or adopting the cancel workflows, and perhaps some of the other message types as well that are kind of out there and have a great value, but until the adoption is fully out there might not be fully beneficial and may actually cause harm to the workflows as well.

Casey Kozlowski – Walgreens – Manager for Healthcare Automation

...point out that cancel is not out there yet. It will be ... I think that in the NCPDP workgroups that kind of put this into the standards, we went through a lot of workflow cases, which, you know, what happens is the prescription has already been dispensed. And there is a message back to the physician. You know, when a cancel is received, the pharmacy is supposed to figure out what to do. If it's still in the bin, we delete the prescription, remove it from the bin, send a message to the doctor saying that's what happened. If it's already been dispensed, then we send a message to that affect saying, look, it's already been dispensed, but we will close out the prescription to prevent future refills, but you need to follow up with the patient if you truly do not want them to be on this anymore. But I think there are going to be other things, once we get any of these implemented, that'll come out that will say, all right, maybe we didn't think about this.

And I find, even with the current standards that have been out there a while, we see stuff that were unintended consequences like Dr. Kaufman brought up about putting the sig in the notes field, so it's supposed to be notes to the pharmacist, but instead we put directions for the patient in there. Those are just sort of issues that, on the pharmacy side, we've either learned to live with, or we go to SureScripts and say, hey, we need to talk to a certain practice or go straight to the vendor in the case of some of the vendors we have good relationships with to say, look. We need to nip this in the bud.

But again, even the worst e-prescription, in my opinion, is still better than the best written prescription because we get a lot of efficiencies by just, number one, having that come into our system right away. I mean, we've found that in our workflow, which in my opinion is very efficient to begin with, we save over a minute of just data entry time and checking time. Obviously just not having to read the prescription saves you a lot of time when the pharmacist is checking the data. I guess, having said that, it's just, I know when I worked in the store a few weeks ago, I got a lot more e-prescriptions than I've ever seen before, and every time I got one, of course, I was like, woo-hoo.

And I actually was working as a data entry technician, so they don't really let me do too much of the big dog stuff anymore. But I did find that they were a heck of a lot easier to enter and obviously to read, and there are things like the sig that we still have to retype because a lot of times we get 3x day or something like that. We don't want to put that on the label for the patient. It's certainly an appropriate way to send a sig over, but again, not something we'd want to put on the label for a patient.

Jessica Kahn – CMS – Project Officer

There's a level of agility that needs to come from the vendor community, and I think that's part of what you were saying about don't tell us the process, tell us the outcome. For the system that was developed for Delaware and for Connecticut Medicaid, they were having their error where people were querying eligibility the night before for the patient's tomorrow, and it was sending back all these errors, and physicians were getting pissed off, and nobody wanted to use it. Well, they just changed it so that now you can verify eligibility the day before the intended date of service. It seems like that's not a big deal, but it ended up being a really huge deal because that was their social capital with their providers who are now frustrated because the most basic thing, is this person going to be eligible for Medicaid tomorrow morning

when I see them, wasn't happening. So I think allowing, having that dialog and allowing there to be that feedback loop is pretty important.

Gayle Harrell – Florida – Former State Legislator

I just wanted to make a couple comments about Medicaid. It seems to be a popular topic. I know Florida did do the e-prescribing. We were wonderful. You all provided us with a grant to do that, and we did save. We did do some studies, and it really does save a tremendous amount of money. I think that is across the board. We wound up with, over a three-year period, saving over \$6 million per month just on formulary kinds of shifts, and also then reduction, we were able to provide we had, we reduced adverse incidents by over 15,000 potential adverse incidents per quarter. That is a significant amount of money, so we really found how significant that was. And I think we'll see that across the board, as this is totally implemented.

But, as we move forward, one of the challenges that we really do face is the integration now of – you have a lot of Medicaid providers in the state with the handheld PDAs, and they're now going into EHRs, and we want to incentivize that. This is where the HITECH bill is coming down with that kind of money to assist them. So we've got kind of two systems running, and we need to make sure that, as they move forward, that the whole thing is integrated together, and you don't have two systems. We have to make sure that it is of one system that runs with all the history, all the data that is one system. They don't have – we eliminate those handheld PDAs, and they go right into whatever system they go into. So that's going to be somewhat of a – you know, that's kind of in the implementation and how we go forward with that.

But one of the things, I want to go back to this safety issue and error issue. That is something that is absolutely critical, and I'm hearing two different things. I'm hearing from the independent pharmacies versus the chain pharmacies as to what that – how important that is or how many errors there are, and whether or not that is truly an issue.

We had the independent pharmacies. I'd like to hear kind of on the other side. What statistics do you have? And what kind of guarantees, or how can you build my confidence, perhaps, that we have a little better handle on error rates, and what does that really mean?

Casey Kozlowski – Walgreens – Manager for Healthcare Automation

It was an interesting comment. I was actually a little surprised. That really hasn't been brought up by the pharmacies in the past. There was one incident a couple years ago where we had another board of pharmacy that said that error rates were higher with e-prescriptions. Of course, we jumped all over it because if this is the case, obviously it's a huge issue for chain pharmacy, as well as SureScripts, etc.

We worked with SureScripts and set up a Web site, sort of a neutral Web site that our pharmacies could go to when they had an adverse event and sort of log it anonymously. We wouldn't get them in trouble or anything. I don't want to speak for SureScripts, but I know that on the Walgreens side, we really have not heard a whole lot regarding issues with e-prescriptions, whether or not they're higher than non- e-prescriptions.

Now we do have issues, and I've discussed some of those, but they are not patient safety issues. I guess that's what I echo the sentiment of the last panel, which is, what is truly an error. Are we considering a new prescription sent in response to a refill request an error? I would argue that's an annoyance. It's not an error. So I guess that's, I really would like to see more analysis, more data behind that. I would love to see the 10,000 prescriptions that have been erroneously sent and see what exactly was the route cause of the error. Is this the wrong drug being sent?

I have anecdotal evidence of that, but not in widespread fashion or anything where they clicked on the wrong drug, which you would think that that could be an issue with e-prescribing that wouldn't be with the paper prescription. But I know the biggest error I ever had when I was a pharmacist was a doctor that wrote Adderall for a five-year-old girl instead of Allegra, and it was clear as day written on the script Adderall. So I think this could be with paper or e-prescribing.

I guess, taking that a step further, we have done a small, internal study. Now we haven't published any of this because it was small. We're looking into making it a little bit bigger, maybe pairing with some of the other chains to be able to get something that could be released, but we looked at DURs or drug utilization reviews, and then third party rejects that we got at the point of the prescription reaching the pharmacy. What we found is that, overall, we see a reduction in both drug interactions, allergies, and then third party rejects.

However, there is one type of third party reject that we see more of, and that would be refill too soon because what happens is the doctor, you know, when a patient comes in to see me. I say it looks like your Lipitor is going to be due pretty soon. Let me just go ahead and shoot off a script for you. Well, technically I still have a week or two left at home, so now the pharmacy receives the prescription a couple weeks early, and we're saying are we supposed to fill this? Are we not supposed to fill this? That could be considered an error, right, because the patient technically doesn't need it. But in that instance, usually we would get the reject, realize that the patient doesn't need it, and put that on hold in their profile.

One of the things we're doing to try to mitigate that in the future is we submitted a DURTH to NCPDP to add a field into the NCPDP script standard to indicate whether or not that prescription needed to be put on hold or if this is something that needs to be filled immediately. Hopefully, and again, this is in the very, very early stages. It hasn't even been approved in NCPDP, but the idea would be then that the doctor could check a box or something to say that this doesn't need to be filled right away.

Jacob Reider – Allscripts – Chief Medical Informatics Officer

Or it could indicate in some way not prescribing ... we check boxes, right?

Casey Kozlowski – Walgreens – Manager for Healthcare Automation

Right. Yes, exactly. Yes. The system could look in the ... see when it was last dispensed. We have medication history, right? And then intelligently auto check that box.

Gayle Harrell – Florida – Former State Legislator

Continuing down the patient safety route because that is a primary concern to me, and really the authenticating of who the patient is, and making sure that you've got the right patient, and that profile, that drug profile that you're getting, that drug history that you're getting is the correct patient. Perhaps this is a vendor question. And how you deal with making sure that you are getting the right patient, or that that information is perhaps from the wrong patient is viewed, and perhaps integrated into the record, how do you expunge that? First, how do you deal with making sure that you do have the correct patient, and that if you have the wrong one, and it becomes part of a permanent record, how do you expunge that, and how can you deal with that?

Casey Kozlowski – Walgreens – Manager for Healthcare Automation

I've never really seen this happen. I would imagine that would be pretty difficult to do because you're looking at first name, last name, date of birth, and zip code at minimum to match the patient. The only thing I could think of would be twins or maybe a junior/senior that got messed up in the pharmacy.

Gayle Harrell – Florida – Former State Legislator

In our practice, we've had three Mary Jones, and actually two with the same birthdate.

Casey Kozlowski – Walgreens – Manager for Healthcare Automation

All right, well, there you go.

Jacob Reider – Allscripts – Chief Medical Informatics Officer

This is not a unique problem to e-prescribing, and I think it is not an insurmountable problem. It is not something that we ignore. But I would echo what Casey is saying. It's not something that we see all that frequently being a problem because we do have fairly good processes in place to look beyond just the zip code and first name and last name, their unique identifiers and other ways for us to look at more data to make sure that we've got the right patient. I think the most frequent thing that I've seen in terms of getting the wrong patient is human error, and it's the selection error where you look up the patient, and you actually pick the wrong Mary Jones, not that the system doesn't know about the wrong Mary Jones.

There are methods of getting data out, so if the data went into the wrong Mary Jones, again, most frequently I've seen that in analog situations where somebody is scanning something in, picks the wrong Mary Jones. It comes in, and then we have to say entered in error, remove that from that patient's record. And that's more of an EHR problem than it is an e-prescribing problem, so I'm not sure if I answered.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

Just quickly for Jessica, the ability to cover the costs around this, obviously we're all kind of constrained right now with the budget fun that we're all having. But you believe that in fact – what is the kind of support that CMS is willing to provide for the fees that the pharmacists are having to pay, whether or not, again, I guess Michigan has asked for the plan amendment to include an increase for that. There's the fees that we're paying through our PBM because of the fees for the interaction with SureScripts. This transaction based work is – we need a different model, and so maybe working with you, we can try and come up with something that works for Medicaid programs generally to do something that's affordable, given kind of our current straights.

Jessica Kahn – CMS – Project Officer

Definitely, and I think there's not one set of solutions for each state, but I think it's all of those things. It's looking at a state plan amendment where you're looking at payment policy or fees dispensed, but also in terms of the state Medicaid agency's ability to really promote all of this and to make the connections possible and interfaces possible. There is, of course, the 90/10 matching fund.

Part of the point of all of this from CMS's perspective, and I think that's why our incentive program goes on through 2021, a full decade, is to normalize all of this as part of the Medicaid process. We're looking at building up infrastructure that will benefit not just beyond HITECH, but also whether it's through the children's health insurance program or through healthcare reform or pay for performance. But trying to have these systems and these infrastructures that will put in the smart analytics for all of these things. And so we're looking at infrastructure from an enterprise perspective, so not just....

That's the caveat that I think it's very fruitful to have conversations on a state-by-state basis because then we would say to ... you're a managed care, a Medicaid managed care state, and you've invested all of this with shared health and doing these things and those things. This is where you have a gap, and this is where you might be able to fill it here. And that would be a different discussion for each state based on their scenario and whether or not they had a certain arrangement or a certain grant. But I think that's an

important point to think about is not just what you're going to do for EHR adoption under HITECH, but more broadly for where you're going with your Medicaid program.

Virginia Halsey – First DataBank –Product Management Director

...patient safety topic for a second? I just want to make a quick comment regarding a parallel in the inpatient environment, so there are a lot of studies out there from David Bates, at partners, and others identifying prevention of errors in CPOE systems in the inpatient environment. There was also a high profile study that talked about errors that were caused by CPOE out of Pennsylvania, and if you actually look carefully at that study and the system that was used and the errors that occurred, a lot of it had to do with usability of that system. It was a very old system. Patient information was spread out across a number of different screens. You couldn't see all the patient information in one place. It took a whole lot of steps to actually get information entered, and then the error, at least one of the errors that I remember had to do with patients showing up in the ED and not being able to order the drugs quickly enough. So I think it's important to think about the issues of usability and the systems, the newer systems are better than that.

Deven McGraw - Center for Democracy & Technology – Director

Do you want...?

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

I did, but I'm wondering if anyone on the phone wants to go first. We've got a couple members on the phone.

Deven McGraw - Center for Democracy & Technology – Director

We at least have Paul. Paul, did you have--?

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

I think Jonah was there too.

Paul Egerman – eScription – CEO

I do not have any questions.

Jonah Frohlich – HIT at California HHS Agency – Deputy Secretary

I'm good too. Thanks.

Deven McGraw - Center for Democracy & Technology – Director

Okay.

Marty LaVenture – Minnesota HHS – Director, Center for Health Informatics

This is Marty LaVenture. I'm on as well, and the only question relates to, I guess this is a continuing issue of sustainability, the next steps, and the integration of e-prescribing with sort of state-based types of exchanges, what types of thinking the folks on the panel have regarding moving in that direction.

Jessica Kahn – CMS – Project Officer

Sustainability and how e-prescribing in these state systems are going to be integrated for HITECH and for into EHRs, that's your question, right?

Marty LaVenture – Minnesota HHS – Director, Center for Health Informatics

Yes.

Jessica Kahn – CMS – Project Officer

Yes, so I wish had 20/20 hindsight. I wish I'd known when we awarded \$150 million in transformation grants, and people were building things that were standalone – never mind. No. We actually learned a lot from those, and that's been very important. We learned a lot about adoption. We learned a lot about promotion, and I think that I don't really want to look at it as sunk costs.

And so, in terms of sustainability, meaningful us is looking at all of these pieces together in order to achieve the goals, and you can see from the NPRM, what's proposed now is sort of using these things, and then the idea would be stage two and stage three would get to actually outcomes of using these things. So it has to get integrated, whether it's functionally a module approach, or whether it's a whole system. I think that it has to get integrated.

But I want to point out one important thing is that somebody made on the earlier panel the point that sometimes e-prescribing can be the door that opens up to a provider for HIT, and I don't want to lose that because now we have an EHR incentive program. There are only certain people who are eligible for the EHR incentive program. States could still decide to promote HIT adoption through e-prescribing for the people who are not eligible for the EHR incentive program because who is that? That's your cohort for the next group. You get them in through e-prescribing.

This is what we learned from the states through offering other incentives or through, sort of like the MIPA incentives under Medicare. Ha, see, no one can say I didn't actually mention Medicare because I usually try not to. So there are ways that you could address that early on, and then once they've adopted e-prescribing, and you've got them used to HIT, and you build them in, then you could graduate them, so to speak, to the next system. I don't want us to sort of abandon these standalone HIT activities just because it's not part of an EHR incentive program. Again, thinking about what's your longer goal and over a longer period of time.

Marty LaVenture – Minnesota HHS – Director, Center for Health Informatics

Jessica, that's very helpful. This is Marty. What I'm thinking is there's also the whole state level HIEs that are emerging and for Medicaid ... payers, they're going to have to, in essence, dual subscribe to different systems in that process as well.

Jessica Kahn – CMS – Project Officer

Yes. We don't want to see duplication. One of the things we've talked very closely with our partners at ONC about is cost allocation. So we want them Medicaid system to be able to participate. We want Medicaid providers to have full access to statewide health information exchange. Of course, that's part of meaningful use, even if we didn't think it was just a good idea anyway. So there needs to be the infrastructure built between the Medicaid system so that our claims information, our pharmacy information can populate that statewide HIE.

Where the bridge is being built from a Medicaid data warehouse or repository to that system, there's funding for that. Where something is being built standalone, there could be a cost allocation, a shared methodology for paying for something if it's not already being built, and there are lots of different models out there, and we don't really have time to get into them. But some of them, the Medicaid owns the data warehouse, and some of them they're just a participant. But that's absolutely our expectation. We've had a lot of discussion with ONC about what are our principles for spending the 90/10 matching funds, and it's so that no one could, at the end of the day, say there isn't Medicaid information in our state HIE, so our providers can't participate. Well, that sort of defeats the purpose. These two programs work hand in glove.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Another sort of source of variation and somewhat frustration, I think, in lots of places is that some state Medicaid organizations are willing to have their data go into SureScripts, RxHub, and others are not, which creates a lot of variation across the country, I think, in how you have to think about this.

Jessica Kahn – CMS – Project Officer

Yes, therein is the federated model of Medicaid, right? We have our reach, but then it's the state's program. But we certainly can identify best practices. We can talk about what's the cost efficiency of doing it one way or the other. I mean, our goal isn't just to say what you said makes sense. One plus one equals two. We'll fund it.

What we're saying is, is that the most efficient way to do the math? Is that the most efficient model that you could adopt? Because we don't want to spend \$100 million for something that could have cost us \$50 million and would have gotten you further down the road, so where we've identified that there are better ways to do things, those are the things we want states to be sharing with each other.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Right. So I have a question actually for Virginia Halsey. What type of validation, I'll use that word, is there for the content that you create and Maltum and all the other compendia kind of hosts? You know we heard from Bettina Black about the issues around, which were really not about features and functions of the technology, or some of it was about features and function of technology. But about having more uniform types of decision support, which we can get into an argument about whether that's a differentiator that you ought to allow the vendors to differentiate among themselves. But you could also argue that there ought to be a floor on it to at least provide some level setting around what we might think are basic things.

And I don't want to go down this path, you know, that once you start certifying EHRs, and then you start certifying.... You know, all of a sudden we're certifying everything. On the other hand, it seems to be a fair question. Where do you stop? Anyway, so back to the question of what type of validation is there around the content that you create?

Virginia Halsey – First DataBank –Product Management Director

Sure. I can only speak for First DataBank, but I imagine the other compendia have similar kinds of approaches. We have dozens of pharmacists that collect the information. We have knowledge acquisition tools with a number of basically quality checks built in, validations against other pieces of data. We have data audits that are run after the data has been input. We have basically data that is collected from package labeling, as well as primary literature, as well as a number of secondary sources, and that information is entered into these data acquisition tools, and then there are a number of checks and balances that go into it. Is that the kind of thing you're looking for?

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Yes, which is to say that it's essentially a market driven kind of thing that you do what you can to have the kind of validation that hopefully will improve your stature in the market and get people to choose your product versus someone else's. As opposed to some kind of process that might say there needs to be some kind of uniformity around a certain – I mean, I'm not recommending that. I'm just sort of pointing out that what you're not saying is, oh, there is an organization like a JAYCO kind of organization that's sanctioned to certify drug databases, for example, or something like that. I'm not hearing anything like that.

Virginia Halsey – First DataBank –Product Management Director

Right. You're right. There isn't, and our data is used, as I mentioned earlier, in thousands and thousands of pharmacies. We're in over 2,500 of the nation's hospitals, and so not that our customers would ever – that we would ever rely on them for our QC, but obviously if there's anything that is resembling an error, we certainly would hear about that immediately. The payers use our information as well, so this is widely used. The codes are out there. They're established. They're proven. I do want to mention that we just spent several years on infrastructure at First DataBank, and many, many dollars to upgrade our infrastructure and bring our QA processes to a whole new level and our automated checking.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

To your point, Micky, is there any requirement that the EHR vendors use somewhat of a certain level of quality as their access to provide that underlying set of information, or could they use Joe's Bait & Fish Shop?

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

They could use Joe's Bait & Medication Shop.

Deven McGraw - Center for Democracy & Technology – Director

Yes, but I think we have to think why would they do that.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

I understand, but there could be, there are just gradations here.

Virginia Halsey – First DataBank –Product Management Director

Yes. Can I make a comment, though? There have been some instances where a vendor will build their own drug database, for instance, or their own drug codes, and what we usually see is that as soon as they have any traction in the market, they'll come to us. They can't wait to get out of that business. There's a huge amount of work over 25 years that have gone into building these databases, and people don't want to do that. It's a very specific business, and they want to focus on their core businesses.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

Thanks.

Jacob Reider – Allscripts – Chief Medical Informatics Officer

I'll validate what Virginia has described and remind folks that I think it's table two, row two of the IFR describes some requirements around vocabularies that are used in this domain that Virginia's stuff would include, but Joe's Bait Shop list of drugs probably would not. And so we use your product or one of them, and I think one of the important points you made earlier around alert overload is important to reemphasize. If you throw three pages of an alert straight out of the manufacturer's insert at the doc, they're not going to read it, and so many of these products now will sell to us. So we are the market, alerts that are more appropriate for real humans to read or use, and so how we use them. And whether we put them up in purple thought is up to us, we hope, because we can get our human factors researchers and the folks who are paid to do this and have Ph.D.s in it to decide how it is that we can best reduce the errors. And in fact prevent them, as you described earlier, much like the hospital vendors have done for a decade or so.

Virginia Halsey – First DataBank –Product Management Director

If I can add to that, the structured product label, the SPL of the package insert is available now for new manufacturer labeling, and so in theory, one could use that structured product label and output that. I would definitely advise against that in what Dr. Reider said about reading a long ... of information when you need just a nugget of what will this drug and this drug do to my patient. And, in addition to that, we just get a tremendous amount of feedback from users saying that there are warnings and interactions in the package inserts that are basically there for liability. It's a legal document, and that, in many cases, they can cause nuisance alerts, so you really have to be able to identify and sift through what's important in a lot of different ways.

Deven McGraw - Center for Democracy & Technology – Director

Great. I'm going to have to wrap up the panel because we're running a little behind, but not too badly behind, which is good. Thank you all very much again for presenting to us and answering our questions. It's all been very, very helpful. Thanks.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

I think, if we could have our final panel, Chris Snyder, Alex Krist, Marc Overhage, and Chuck Fredrick, please. Thank you very much, everyone, for coming, and for those of you who had to travel, by plane in particular. Thanks for coming. This didn't come up in either of the previous panels, but I just want to – this panel, it could come up, and I just want to make sure that we have some rules of engagement here and kind of have a shot across the bow for this panel that we will not tolerate gloating about football from this panel. Okay, Dr. Overhage? And it's only coincidental that the New England Patriots broke my heart that I say that.

Deven McGraw - Center for Democracy & Technology – Director

Definitely not the town to talk about professional football.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

That's true.

Deven McGraw - Center for Democracy & Technology – Director

No interest....

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Anyway, why don't we begin with Chris Snyder. He's the CMIO of Peninsula Regional Medical Center. Thank you.

Chris Snyder – Peninsula Regional Medical Center – CMIO

Thank you. I appreciate you including us. I think the reason we're here, we're a community-based hospital in Salisbury, Maryland, about 150 miles of east of here. You fall in the ocean after you pass Salisbury. I'm a hospitalist as my background. I was actually in primary care for five years, and I spent the last ten years being a hospitalist. And I've been chief medical information officer for about six years. They brought me in to implement a CPOE, so that's what I've been doing the last five years.

I'm going to tout just what we've done, and try to hopefully create an environment where you can recognize its relationship to e-prescribing, and the venture you're going down is very challenging. We have 350 providers. I've trained over 2,000 staff. All the physicians I've trained myself, low to mid level, and it is a challenging job, so it is anything that any CMIO sitting in here, I'm sure, has had the wonderful venture of doing. My ER colleagues use CPOE regularly, so I love to hear your comments and agree with many of them.

We are at 85% utilization of CPOE at our institution. Eighty-five percent of my orders in our hospital go through a computerized order entry. We are closed loop. We are a very integrated hospital in a little town. We have a lot of computer investment. Back in the mid '90s, we had a very wise CFO who invested in a CIO who is sitting behind me, and they have taken the ball and run with it. All our documentation is online.

We do it through a portal that is physician accessible, both remotely and in-house. Our ER physicians are 100% on EMR and use the same CPOE. The nurses, every staff in the hospital uses one way to enter orders at our institution.

You asked about safety. I hope I get to comment on that later because I do have in-house data from safety showing how effectively these tools can be utilized, and I'm getting ready to actually present that in Atlanta in a couple weeks.

One of the things I wanted to talk about was kind of our journey in the past in '07 once we got the joint commission rule that we need to have reconciliation in our process at all levels of care change. That was somewhat of a challenge and, in my vision using CPOE, I see an Rx as an order, so it's an order outside of the institution. It's an order that he writes to send his patients home with, any other provider of care, and any setting use it to communicate information to the next level of care. That is what CPOE does.

We have built CPOE in our system to have the dose ... frequency, duration, etc., and also have the decision support that the physicians would use that would effectively help them practice better and safer medicine for the patient. I think that's why we're all going with e-prescribing, a much bigger fish to fry, absolutely. I have a group of physicians who are all community based. We had to do a lot of consolidation.

I had five lists leaving our institution in 2007, five lists of medications that unfortunately had errors that were measured to a point where patients had a lethal event once they left our institution because of that.

I know I'm not alone saying that. There are other hospitals out there who worked through those issues. We've took it very seriously. We did not want that to happen again, so we consolidated our lists over a three-year period.

We also had to change a lot of culture. Physicians don't want to slow down to take the time to do these things. It's very difficult to get them to do that.

Presently we're cleaning up medication history. When the patients and medication reconciliation is probably one of the most challenging things. My hair was black as coal three years ago, and it is not my teenager who is doing it to me. It is absolutely med reconciliation. When they ask me to talk about conciliation here, I said that you've got to be kidding me. It's probably one of my least favorite topics, but it absolutely has the most affect on patient safety of anything I think we've ever done in healthcare. And I think it's very important that e-prescribing is part of that journey.

I've asked our vendor to integrate that with our CPOE, so when I discharge a patient, I have a home list, and I have an inpatient list that match up by class and gives me a prescription to help me send off to the next level of care. That has to occur. We've held our vendor accountable to that in the process of developing that tool. So it will integrate with our CPOE.

On the admission piece, the collection process is absolutely abysmal what we're collecting. We found actually we had to put a containment process on our doctor's for three years. Over that three-year period, we found that, in the beginning, 70% of the medications leaving our hospital were wrong. They had no mission, a dose that was wrong, a frequency that was wrong, and no wonder we have heart failure coming back every 30 days almost 30% of the nationwide population. This is a big, big problem. We have to fix this, so our hospital is going down that road. We are cleaning up medication history.

Part of the problem in that medication history is – and, by the way, how many – raise hands – who have their medication lists on them right now, right now. Okay. When he's in the emergency department or I'm in the same day surgery collecting information on a console to approve a surgery, I don't have a list. I have very limited resources to my list. The patients have to have some sort of accountability to this. They have to have a feeling that it's important as April 15th. It has to have that tax burden. They don't care in many respects. That's true. But in many respects, they do care. They just don't understand, and we have to do a better job of that, so there are a lot of issues with accountability of patients, and I don't know how to tie that into this, but I'm saying that tax day, I never miss. Nobody does, so how do we do that?

In the future, again, we're trying to get to one stop shopping. We've got one list. We're trying to make the list more complete, which is the first important thing, getting a complete list, but then getting an accurate list is almost impossible, very difficult, and very user friendly impeding by the provider side. I have a very difficult time seeing information when it's presented to me from any list that comes from nursing homes.

I'm not going to do the DEA thing because that absolutely needs to be said. It's a big limitation, the psych meds, so I'll go on and on, and I'm sure everybody else is concerned about that.

Meaningful use, I will have my opinion about whether we have a relevant need for medication reconciliation, and at what point of care we need that. I don't think a urologist should be reconciling Lipitor. I absolutely don't think they should look at that. I'm not sending them ... sending a patient to them to look if there are any hyperlipidemics. I am sending them to look at their urologic function, so I think it's very important we look at that and make sure we understand that.

We've been on a journey for about three years. We are e-prescribing at our institution. I built every medication. Decision support is a mandatory field. It has to be simple. It has to be easy. And I do have safety things I can share with you later if we want to talk about that, so thank you.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Thank you. Dr. Krist.

Alex Krist – American Academy of Family Physicians

My name is Alex Krist. I've really enjoyed listening to this conversation today. It's been fascinating, and I appreciate the opportunity to talk. I was asked to come here by the American Academy of Family Physicians to talk about kind of the primary care physician's perspective on e-prescribing. I think I was asked because of two of the hats I wear.

One is, I'm a clinician. I spend about 40% of my time seeing patients. I'm in a large medical group in Virginia. We've had a fully paperless system since about 2004, and we're a private practice, which I relatively unique. We take care of about 400,000 patients or about a fifth of our community where we live, and e-prescribing, electronic record keeping, registries, population management, do PQRI, CMS reporting, secure messaging to patients, kind of the whole gamut of things. And that's probably one perspective they wanted me to share.

But the other is, 60% of my time I spend doing research through Virginia Commonwealth University, and we run a practice-based research network. We have 100 primary care practices throughout the state of Virginia, 5 health systems spanning the entire culture, geography, business structure, practice side structure, and HIT experience. A lot of the research that we do is trying to promote preventive care and chronic disease management by more effective use of HIT. We spend a lot of time going into practices, understanding their needs, their workflow, how they do things, what they can and can't do, and then trying to make things better. Those are the perspectives that I'll be talking about from today.

I want to start by saying I'm a very big fan of e-prescribing. I think there's been a lot of benefits with it. It's an example of where we have one of our most effective communication between clinicians and pharmacies. And we've seen a lot of benefits from that that have all been said, and I won't go over again: legibility, documentation, decision support, and patients like it. When I can say to my patients, your prescription is there, as we heard earlier from the other panels, they like this and it's a good service.

And there are a lot of challenges, and I don't want to talk too much about those, but multiple workflows, for example, narcotics, systems not always being reliable, connections go down even when you're in areas where you have great Internet connections and that can interfere with the flow and create duplication of work. Cost is an issue. We've talked some about that. I'm not going to go into it a whole lot. We heard that cost, buying these systems aren't necessarily very expensive, but more the expense comes in from a practice standpoint of all the resources and staff that go into it. My group of practices have four IT staff that we support full time just to keep our system up and running, and e-prescribing is often one component of a larger system like an EHR that requires support. Then there are all the other types of workflow things that you need to support that, whether it's a handheld or a computer or those types of issues.

I'd like to think about e-prescribing in the context broader. I was glad that Kim Dunn mentioned around the patient centered medical home. This is one component of meaningful use, one component of redesigning care to be more effective. And I wanted to kind of take that and talk about some of the things of where we need to be heading beyond just how do we get people to use it and adopt it.

One thing I haven't heard a lot about was that it can be very difficult to maintain medication lists beyond just medication reconciliation and transitions of care. One of the beauties of e-prescribing is it captures everything, and it records everything. But this includes acute medicine, short-term medicine, things that have become outdated, and a lot of these lists for patients become very jumbled and not accurate anymore, and this has implications for safety, and it has implications if you want to open this up and share it with patients and use it and share it across clinicians and settings of care. How do you keep this list up to date and the way it should be?

We've heard some about decision support being very rudimentary and prompt overload. Prompt overload is a gigantic problem. When I talk across our practices in Virginia and our PBRM, very view of the clinicians even notice their prompt. They click this without even noticing it's there, and shut it off as quickly as they can. They say that the information is not useful, and the tragedy of it is that there is very

useful information imbedded in there, but there's extraneous information, and it's not filtered, and we need better evidence base to guide what that is.

And even some prompts like formulary reminders, so my prompt consists of a smiley face or a red unhappy face. Well, it would be much nicer if I could convey to a patient this is what this will cost you. This is the exact meaning of this, as opposed to say, well, your pharmacist or your insurer likes this one or doesn't like this one. That doesn't really convey the information we need.

Another thing is about prescription information is not really shared, so from a physician standpoint, myself and many of our physicians in our practice-based research network, our experienced with e-prescribing is that we write a prescription and we send it off. And that's our experience, so we don't get a lot back from the pharmacies. We do get some refill requests and things like that. But things like did the prescription go through, did the patient fill it? Over time, are they continuing to fill it, meaning, are they compliant with their medication? The physician to pharmacy communication is probably the most developed. We're making progress on the pharmacy to physician.

We don't have much at all between the physician and the insurer, thinking about preauthorization, formulary, things like that. I think it's probably very rudimentary, and I have not heard any discussion about communication between the physician and the patient. So prescribing a medication is an opportunity for patient education, both about their condition, about the medicines, other types of things. Patients should be a part of the e-prescribing process, maintaining their lists, knowing what's going on, and other things like that.

Another thing to think about, kind of moving forward with meaningful use, is population management. It's not just a reactive system where we see a patient and we take care of them, and we do what we need for them. We should also be thinking proactively, so there need to be mechanisms to go through, and if there's a drug recall, identify patients on a medicine and contact them, or even more commonly and more importantly, think about people who should or shouldn't be on something, and prospectively and proactively be able to interact and communicate with them.

When we think about many of the practices, what they tell us they need to move this stuff forward and to think about meaningful use and everything with e-prescribing and HIT in general, I mean, one is they need external support with making these connections. Your typical average primary care practice cannot do this. They don't have IT staff, and the vendors can only do so much within their business model, particularly when it's a \$500 a year contract. E-prescribing, using it to the full potential should be simple, like an ATM card, for the end users, physicians, patients, pharmacies.

Systems need to integrate with workflow. As you start thinking about where we could go with meaningful use, we're actually talking about creating new responsibilities and new jobs in practices. And, in many cases, these are not reimbursed services, and these are already stress systems. We need evidence. We've talked some about evidence, but we really need patient outcomes to say doing this improves patient outcomes. It reduces errors. It improves medicine compliance or these other issues. And then when we're thinking about how to move forward, we have to think about the average ambulatory practice where Americans receive a lot of their care. And if we want to get it out, and we want to change the health of our nation, we've got to make something that works for the average practice that can take this and use it, and it's feasible and accessible to them.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Thank you. Dr. Overhage?

Marc Overhage – Regenstrief – Director

You sure I can't talk? No? Okay. Good morning, and thank you to the group for—

Deven McGraw - Center for Democracy & Technology – Director

...time....

Marc Overhage – Regenstrief – Director

...for letting me be here. You actually get a two-for this morning. I'm kind of the techno geek. We implemented e-prescribing in our large, academic practice in the mid '90s and have had 100% CPOE there since about 1997 or so, although connectivity to the pharmacies has been a more recent part of our work.

The second part you get though is my wife is a pediatrician, a three-physician practice who does e-prescribing using a nationally recognized product who was on call this weekend, as I was putting my notes together for this, so there were lots of things. Honey, make sure you tell them that. So you will hear that as well.

The perspective that I took though was to really sit down and look through the NPRM because I have to do that for lots of reasons, and try to think through the things that are identified there that might have implications for e-prescribing and its adoption for meaningful use. A couple of things actually surprised me, things that I thought I knew what the trajectory was, and they were a little bit different, or things that were there that I went, yes, that's there, and it's going to have implications. The first being that CPOE is defined as the provider's use of computer assistance to directly enter medical orders, which I think will have some implications for workflow.

The second, as others have noted, is the provider must maintain an active medication list. You heard about some of those challenges. An active medication allergy list, implement drug/drug, drug allergy, and drug formulary checking. And one of the surprises for me is, I think, if I read the proposed rule correctly, that it does not include the electronic transmittal of that order to the pharmacy in stage one, although in stage two it's clearly included in table two, electronic transmission, but there's not a threshold. There's not a metric for it. So it's a little bit confusing.

The way that I chose to organize this or the framework is not a fancy mathematical equation, but sort of just working through things from the basics. And the first is when you look at coding systems that the IFR or that was published as a companion to the notice of proposed rulemaking identified standards, including the UNII coding system for medication allergies and RxNorm for medications. And I'll note that the UNII, while it's a forward-looking proposal, actually has a number of challenges. There was a comment earlier on about the need or aggregated terminologies. UNII is at the ingredient level. It's actually fairly challenging to work with. It's only mapped to about 2,467 in the last release of RxNorm of the RxNorm CUII, so there are about 9,000-some-odd UNIIs, which are not mapped today. So there may be some readiness issues to be worked through with that particular coding system.

Even more importantly than that, of course, is that the vast majority of allergies, whether we receive those in transmittal from hospital information systems or physician practice systems today are not coded. And you see a wide variety of crazy things reported there, and I think that that's going to be a challenge, as we move forward to implementation for meaningful use looking forward towards 2013.

The requirement for eligibility inquiry is a wonderful thing. There were comments earlier about integration with the payers is a great and wonderful thing. The data you get back is not always as good as you might think. Well, it's very common, and we're fortunate that we have such an evolved infrastructure in this country for e-prescribing. It's clearly far better than our infrastructure for almost any other aspect of care thanks to many of the folks who've testified here this morning.

But, for example, the eligibility inquiries, incredibly common to get back information about which formulary is relevant for the patient, but not which copay table of the 14 or 15 associated with that formulary are appropriate with the patient, making it impossible to display more than the happy face, sad face for many of the payers. I should say, many of these things are – you might think of these as fringe of facts, but it's been repeatedly commented on. It doesn't take very many of these little barriers to crop up to keep a clinician from using the system effectively, which, of course, is our overall goal.

Many of the systems, as we analyze e-prescribing use in our community, require the providers to take extra steps to obtain the medication history. It may require the sort of hold the left shift button down, click

on the mouse with your right hand kind of thing to get the medication history, which is being widely made available through PBMs and pharmacies electronically, but the systems don't always make it easy to obtain that.

There are also, related to medication histories, technologic challenges that are still to be overcome. One significant medication source in this country for example, today if you request a patient history that happens to contain more than 50 dispensing events, you will get nothing back. Now if you're clever, and you ask for three months of history, you may fall under that 50 threshold. Now this is a technologic glitch. Hopefully it will be resolved over time, but it's been there for at least half a year. One of the bad things is, of course, if you don't know it's there, and you request a medication history in an e-prescribing application, you get nothing back. You assume there's nothing to be known, and it puts you in a very awkward place as a clinician.

We do a poor job of organizing that information we do get back in medication histories and synthesizing it into usable information for the clinician. Things like patient adherence would be a lovely thing to derive from that information. And we have this mismatch between the level of how the pharmacist thinks about these orders and how the clinician does. I want to give the patient amoxicillin 500 milligrams 3 times a day. The pharmacist is required to dispense a specific drug with a specific strength, maybe 500 milligram tablets, maybe 250 milligram tablets if that's what they have on the shelf, and to integrate that with what I want to do, and that impedance mismatch, that disconnect creates both work and tensions, I think, in the evolution of the standards.

Formularies, while a wonderful thing, and we've come a long way in terms of having an aggregated source of those, it continues to be a huge challenge, not just because of the volume of formularies that are dealt with. We routinely update 3,000 formularies with tens of millions of unique NDC codes on a weekly basis. But also the formularies have a lot of glitches in them: data that is represented as text, not as structured data, so for example age ranges that should be used to do checking for formulary eligibility for drugs can't be implemented. So there are a whole variety of problems today with the formularies that limit their value in terms of use.

Electronic transmission of prescriptions has been covered fairly well, and with the probably exception of end-to-end confirmation prescription transmission is pretty reasonable. I will say though that there have been a couple comments about patients liking this. We actually found in a recent survey that 25% of our patients don't want electronic transmission of their prescriptions, and it's for two reasons primarily. One is, they've had a bad experience. The prescription wasn't at the pharmacy when they went to pick it up, and it was a lot of hassle to get it right. The other reason is that they don't know where they're going to get it filled, which pharmacy. I'm going to the grocery store, and then I'm going home, and I don't know when I'm going to stop, and so they really don't want that, so that can be a significant problem.

The two other points I want to make in the moment I have left is about workflow, and this is one of the wife things, and that is, in small practices, my wife's practice e-prescribe. She was on call this weekend. The three other practices they share call with do not, and even if they did, when she is required to write a medication for one of the patients for a physician she is cross-covering for, it is nightmarish because she essentially has to register the patient. It's a huge effort to be able to e-prescribe, and I think that's going to be a significant barrier for many smaller, rural practices, as we move forward.

The other point that I want to highlight, besides what's in the written testimony, is around clinical decision support, which has been touched on a bit, but we absolutely must. And if you look at the experience of the institutions who have pioneered electronic order entry and decision support like the VA and Partners Healthcare, they have a modest number of drug/drug interaction rules on the order of 200, not 20,000. And I think this tension that these vendors who are trying to do a wonderful job of curating the knowledge base and the information and what is practical and helpful for clinicians is very difficult.

I'll sneak one more in because there was a comment earlier about the SPL, the structured product labeling. The FDA actually is receiving a lot more structured data than they are publicly making available today, and they are not making all of the SPLs available for all of the drugs they're getting them for

because they're not for drugs that they currently regulate, but rather, just regulate the manufacturer of. So I would encourage making that information more broadly available.

In short, John Glaser can rest easy. There's plenty ... to sweat over to get to meaningful use of e-prescribing despite all the great work and infrastructure we have today. Thank you.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Thank you. Next, Chuck Fredrick from eMDs.

Chuck Frederick – eMDs – VP Clinical Applications

I'd like to thank the committee for the opportunity to share some of our thoughts about e-prescribing. My name is Chuck Frederick. I'm vice president of clinical applications for e-MDs. I also happen to be a pharmacist. E-MDs is an ambulatory EHR solutions provider based out of Austin, Texas. Our company has extensive experience in implementing EHRs in small and solo primary care physician offices, which happens to be the segment of the physician population that provides healthcare for most Americans, and yet is the least implemented on record.

Our experiences with the needs of these physicians and my training as a pharmacist and developer of EHR systems provides, I think, a unique perspective on e-prescribing that encompasses both ends of the process. I'd also like to mention that we're a physician owned and physician driven company. And when I say driven, I usually mean with a whip and a chair because we're very interested in the workflow for the physicians and also the patient safety issues, so having physicians own and run the company, I think, gives us a unique perspective as well.

Considering the meaningful use criteria, overall, we feel like the criteria is very manageable, as the technology standards today, so I don't want to go too much into what's already on the list for 2011. But I would like to talk about a few things that we see as problematic. One of the advantages of going last is I get to hear everybody else, and one of the disadvantages is it looks like I'm cheating off the smarter kids in the class. So some of this is going to sound familiar, and I'm not going to go too much into it.

Of course, the number one thing on my list is the current restrictions by the DEA, and the only thing I'd really like to say is it will be a disincentive if what the physicians end up is a different workflow, having to deal, depending on the medications they're prescribing. And I would also like to just mention that once a resolution is found, hopefully it won't be too burdensome for either the physicians or the technology providers. By that I mean those hardware keys, as Dr. Stack brought up earlier.

I'd also like to highlight the differences in the state laws. These can be a barrier to smooth adoption. As with the discrepancies in the privacy laws from state-to-state, we see that some states have decided to be more restrictive than the DEA are, and we see that as a problem. We also see that some states require separate certification for vendors to be qualified to generate prescriptions, both electronically and by fax. We feel like an overall national standardization effort for these issues would go a long way towards alleviating these problems.

As to the e-prescribing features themselves, again, we feel like the current requirements are a good compromise. We do have some concerns about potential delays in adoption of other needed functionality. For example, e-prescribing message types for canceling or discontinuing medications, fill notifications, a true end-to-end verification that informs users that messages reach their intended endpoints, structured codified sig, and an interactive electronic communication between the pharmacist and the providers are some of the features that need to be strongly considered sooner than later.

Additionally, it's critical to understand that it takes both sides of the e-prescribing equation for these features to be successful. The pharmacies are participating, and certainly will continue to do so. But if there's no legislative requirement or incentives for the pharmacies similar to that for the providers and the EHR vendors, the adoption rate for the new functionality is not guaranteed to happen at an equivalent pace. The healthcare industry consists of many different players, and true success will only occur when

every segment is incentivized to participate. Only when providers, EHRs, labs, pharmacies, payers and others are all participating at the same level will success be attainable.

As to the medication reconciliation requirement, we strongly agree that this is a needed feature. But in working with our clients, we hear some concerns about insurances that all of the medication information is going to be available. In today's environment, there's no guarantee that all the claims data and pharmacy prescription data is available for the provider, and this needs to happen for them to feel confident in relying on the information for clinical decision making.

We also have concerns about lack of specific direction on what defines medication reconciliation. While we appreciate the position of not dictating how a feature will work in order to facilitate innovation and creativity, we remain concerned about expectations from other stakeholders such as the joint commission. More clarification of what medication reconciliation's should look like in terms of physician workflow would be welcome.

In conclusion, again, I'd like to thank you for the opportunity to share our experiences, and we hope that we can encourage you to examine some of the items that we've brought to the table today.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Great. Thank you. Thank you to everyone on the panel. Why don't we start with anyone, any of the workgroup members or policy committee members who are on the phone this time? I think we had Frohlich from California, Marty LaVenture from Minnesota, and Paul Egerman, I believe were on the phone. Do any of you have any questions for the panel?

Jonah Frohlich – HIT at California HHS Agency – Deputy Secretary

I may have a couple. I just want to formulate a couple thoughts, if I can come back in just a moment.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Okay, Jonah. We'll get back to you then. Let me open it up then to the in-person people, Steve Stack.

Steven Stack – St. Joseph Hospital East – Chair, ER Dept

First, from the facility standpoint, how do you guys deal with scheduled and unscheduled downtime, and continue to kind of keep your doors open for business? So even if you have a 99% uptime, it's 88 hours a year, which shouldn't really sound like that much until you're on for 2 of those, and the emergency department doesn't stop having patients come through. How do you deal with that, because even in big, urban settings, that happens?

Chris Snyder – Peninsula Regional Medical Center – CMIO

Sure. Downtime process and, in fact, joint commission, when they surveyed us, that was one of their big questions, so there has to be a process in the back that will collect that information. Fortunately, we have a fair amount of redundancy in our servers, so we're allowed to have some of that luxury. But in case we did have that one percent downtime, which my CEO back here is praying it's not right now while I'm speaking about it, but I think the paper backup has to be there. And we have built the system duplicate on paper, specifically for the orders and the documentation, so that's important that you have a paper backup for all this, and that's our current utilization, and it is identical. That's one of the challenges is making it identical to a computerized order entry system.

Steven Stack – St. Joseph Hospital East – Chair, ER Dept

Are you aware, within the hospital facility world, of many providers having parallel redundancy, I guess? I don't know what the terms are. So two banks of servers, so that if the primary goes down, the secondary can at least keep a core set of services running. I mean, it's really costly.

Chris Snyder – Peninsula Regional Medical Center – CMIO

It is.

Steven Stack – St. Joseph Hospital East – Chair, ER Dept

And it's not easy to do, but I know major financial institutions often back stuff up in different geographic regions of the nation so that they don't lose information and can keep conducting business.

Chris Snyder – Peninsula Regional Medical Center – CMIO

Correct.

Steven Stack – St. Joseph Hospital East – Chair, ER Dept

But I think healthcare is going to have to get there if we're going to really digitize all this stuff, and it's got to really be indelible. You can't lose it, and it's got to be available, even if one region is having a problem.

Chris Snyder – Peninsula Regional Medical Center – CMIO

Correct. I agree, and we are going down that trail. We've been down that trail, I guess, five years now, and my CIO is sitting behind me, could probably speak a lot more technically to it than I could. There are certain things that do currently have redundancy. Not everything is redundant at this point, but that's where we're going.

Steven Stack – St. Joseph Hospital East – Chair, ER Dept

It's the wrong question or you, Marc, but you're the best of the four, maybe, to ask this. The problem with destination of prescription, so as an emergency doc, that's real for me. For a family doc, your patient may go right to the grocery store or the same one. I don't know. But for me, it's a huge issue, so is there some way, or is it conceptualized some way to give a boarding pass sort of document to a patient when they leave so that maybe they go to the destination pharmacy they thought they told you. But it's not the one they did tell you, or I entered it wrong, but with a code or a number, it can somehow be retrieved back and rerouted to the right pharmacy? So you avoid some of these problems of getting to a pharmacy and no prescription call back. I see that as a real nightmare for me when I eventually have to do this in the emergency department. I don't know about your physicians in your setting.

Marc Overhage – Regenstrief – Director

I see it as a real nightmare as well. It's a very challenging thing, especially if you have, as you say, populations of different kinds. The endogen population, for example, we have a terrible problem with that. They don't live in the same place three weeks in a row, and so they're going lots of different places, so it's a very real problem. In fact, we've implemented that kind of – we actually hand the patient a prescription advice that has a prescription identifier on it, and they can then, over the telephone or over the Web, say I want to direct it to this pharmacy. They can pick the pharmacy later, which isn't quite as good as the pharmacy being able to do it. Technologically, it's certainly possible. I think there are some challenges in terms of business models and things like that and making that a broad answer nationally. But I think that there are a lot of reasons where that could be helpful.

Steven Stack – St. Joseph Hospital East – Chair, ER Dept

Yes ... banking, we have a similar scenario. Your finances, you run back ... somebody checking, hopefully, the individual who has the account. I find, as a physician, especially as a hospitalist, I get very little feedback from the next level of care, unless they come back to the emergency room. That's obviously what we're trying to avoid.

The example of Lasix, which is a drug for diuretics, for nonclinical people, you know, giving a patient a dose once a day, and they go home and take it twice a day, and they come back dry in a week because they're taking too much Lasix. I don't have any collection of that information. I would love to see this e-prescribing functionality give me some sort of checks and balances for the provider of authentication of that prescription or somehow push that authentication to the next level of care, whether it was a nursing home, whether it was a primary doc, or whatever. But we don't have checks and balances once they leave our four walls. Inside the four walls, we absolutely do.

Chris Snyder – Peninsula Regional Medical Center – CMIO

If it's okay, I'd like to just say too that the issue about redundancy and what do you do when systems are down is not just one for 24-hour organizations. The systems go down even when you're open just during hours, and they go down more than we'd like them to go down. And so you have to have, even your

small practice of one or two docs have to have backup data systems, and they have to have parallel paper based systems so that you can deal with what happens if my connections to my EMR or my e-prescribing system don't work.

And you asked about is there a boarding pass if someone switches what pharmacy they go to. In practice, we see a lot of clinicians do that. That's called giving them the prescription twice. You send it electronically, and you give them a paper one. Then if they change their mind, or you're concerned that they're not going to go to the place that they said, or there's confusion because there are four CVS on route 50, where they said they want to go, and they don't know the street number of it. That's the workaround that often occurs now. It would be better if it could be an electronic workaround because then you miss out on the advantages of the e-prescribing.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Just a quick clarifying question, so just to one of Steve's points, if I had sent the prescription electronically to the CVS at a particular location, if the patient showed up at another CVS, would that be okay, or is it location specific? Do you know? SureScripts, do you know?

W

(Inaudible)

M

...Walgreens....

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

I see.

M

...transfer ... the only problem with what Dr. Stack said about, you know, they went to the wrong pharmacy ... pull it down. What if the go to the first place ... not the same ... written comments. We're not interested in a fill ... response, that it was not dispensed before the system sends it out to another pharmacist.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Right. Yes. So there are all sorts of complexities ... stuff. Yes. One of the things I was just thinking of, and one of the things I'm struck by is, in other parts of our life, we do live with a whole bunch of lack of interoperability that we end up living with, like banks. Some were talking about banks. Now ATMs are great. I can withdraw money from any ATM. I can't deposit money at any bank. I really do have to go to my branch and deposit the money back. And we tend to live with it. We don't think of that as an interoperability issue. We just sort of live with it every day, and I think we're going to sort of struggle with that in all these kinds of transactions as well for a long time.

Steven Stack – St. Joseph Hospital East – Chair, ER Dept

I think, electronifying a lot of this is going to show really the level of imprecision with which we've lived for so long, and the level of precision with which we must live going forward, the same thing for quality indicators and stuff. Something that says, do you do X, you know, something for your patients X percent of the time may sound great logically when human beings talk about it. But for a computer, if it's not a black and white binary reportable zero or one kind of answer for the metric, it doesn't work. This is....

Chris Snyder – Peninsula Regional Medical Center – CMIO

That leads back to her statement ... we don't have the data to look at. When I look at my inpatient data for utilization of Dilaudid, which is a dangerous narcotic, 18 months ago we weren't looking at it, but now doctors, a company gets a malpractice letter that goes out to all the staff and throughout the country and says, you know what, be careful with Dilaudid. You might kill somebody. Sure enough, now all hospitals are looking at Dilaudid, and now we're decision supporting it, but it does drive the safety thought we weren't looking before. Now I can look. Now that I have CPOE, I can look.

Gayle Harrell – Florida – Former State Legislator

Going down, you anticipated my question. Going down the patient safety issue again, and the combined aspect of liability that goes with patient safety, part of the meaningful use requirement is medication reconciliation. At what point does the physician become liable when you're the urologist, and you're looking at the medication reconciliation, the history of someone who perhaps has been given OxyContin and Dilaudid by two other physicians? At what point, or perhaps not something he is going to prescribe, but perhaps there are contraindications or dangerous contraindications between two other physicians, medication he hasn't prescribed? Where are we going with the liability issues on that medication reconciliation, and what is the responsibility of you, the physician, as you sit there and you look at that?

Alex Krist – American Academy of Family Physicians

I'd say the responsibility from the malpractice standpoint, it's always been there. The doctors have always been responsible, even with paper based systems, even with poor forms of communication. The difference now is we have an opportunity to use e-prescribing as an enhanced platform for communication, so that, in theory, two clinicians in different settings can make decisions based on all of the information and can share that, and you can have more opportunities to find these interactions and to prevent these things. I think, malpractice wise, both are responsible, and they always have been. I think there are opportunities to fix it.

Gayle Harrell – Florida – Former State Legislator

So at this point, because you know about the patient receiving medications from other physicians, that could not be appropriate or could be dangerous, that physician now has the responsibility because they are knowledgeable. It's upping the physician's level of responsibility and liability because of the knowledge that he has now obtained via that medication reconciliation.

Alex Krist – American Academy of Family Physicians

One of the hats a lot of family physicians and primary care physicians wear is to think about coordinating all care, and so I think most primary care physicians have already felt responsible and liable for that. The communication in the past is a letter. And, to be quite honest, that's the communication I get now. We don't have that e-prescribing interoperability between specialists and between care settings, and I don't think any of our 100 PBRM practices really do, except for a couple in some health systems. But the letter was what was there before.

Gayle Harrell – Florida – Former State Legislator

Now as the urologist or the ophthalmologist looking at that, those primary care kinds of medications, are you not expecting them also to be the primary care doctor and not the ophthalmologist?

Chris Snyder – Peninsula Regional Medical Center – CMIO

We, as doctors, no, would never expect the urologist...

Gayle Harrell – Florida – Former State Legislator

But is the report looking for that?

Chris Snyder – Peninsula Regional Medical Center – CMIO

Is the court?

Gayle Harrell – Florida – Former State Legislator

Is the med map...?

Chris Snyder – Peninsula Regional Medical Center – CMIO

The court is going to look for it. And I'll be honest with you. Just like my attendings used to tell me, you know, if it's not written, it wasn't done. So an omission, I think, is more dangerous than actually having an awareness. You know, an awareness, most of us have pretty good ideas of what we need to look for. But then again, a phone call from a urologist saying, what do you think about these drugs – or to the pharmacist maybe is what is a result of a list that is accurate and complete, versus a list from ma and pa that says there are only three drugs on it, and three of them are totally unrelated in class. So I think

having an accurate and complete list, I would much rather have more information. I'm not worried about the liability as much as I am the patient safety. We all have liability.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

I guess I'm trying to think through the concept of reconciliation a little more here and understand what really is possible. First, I guess, just as far as whatever has been prescribed in numerous different locations, and I think, Dr. Snyder, about your comment about nursing home lists, and I think about how critical – I mean, there's a whole lot that goes on inside the nursing home that when they show up unconscious at your place is a real problem.

Chris Snyder – Peninsula Regional Medical Center – CMIO

Yes. You know, the nursing home, again, I haven't seen anybody represented here by that level of care, but that's a huge population, and I think that is a population that has the largest med list. It's not unusual I see 20 meds on one of those patients when they come onto our service. Honestly, in fact, I'm part of the CRISP health initiative, the HIE initiative for the state of Maryland. We have a number of nursing home representatives on there who, they are still light-years behind hospitals and primary care offices because they just haven't really had the need to invest into that, although they have an indication after every medication. Go figure.

But going forward, I think that transition of our sickest population is where we have our highest risk. And I promise you, in the hospital – when I used to do primary care in the office, those patients had problems. But you come in the hospital, I mean, it is so important to corral that list. Then, when they leave, to be able to send it to him and him, a list that has information that's accurate and up to date, and that's where our focus is now to make sure that patient leaves, so the next time they come in, at least we have an idea of where we're going. But that closed loop is something we need to get into in the e-prescribing realm. It's tough because there's a big piece of it missing, a couple of them.

Dave Goetz – State of Tennessee – Commissioner, Dept. Finance & Admin.

Where would you get a nursing home list? Help me understand. Do they just come in on a printout from what they've been getting?

Chris Snyder – Peninsula Regional Medical Center – CMIO

Yes. Currently that's how we do it. I don't know. Other facilities have different, but ours come from a list, and we actually met with all the nursing homes about three years ago.

Alex Krist – American Academy of Family Physicians

I was going to say, just to put a scenario in mind, just to think about this because it's not uncommon. You have a patient go from an ambulatory setting. They get sick. They get hospitalized. They're in the hospital a period of time, and then they go to a nursing home for transition. So you have outpatient to hospital to nursing home, and then they're there just a brief period, and they go back to the outpatient setting.

Chris Snyder – Peninsula Regional Medical Center – CMIO

Or back to the hospital.

Alex Krist – American Academy of Family Physicians

Or back to the hospital. Hopefully not, but yes, they could bounce back and forth. There are a lot of transitions that occur, and most of what we're seeing to maintain this, it's all manual work. For our group, I can say, our physicians, you print out their list of their medicines in the ambulatory setting for when they go to the hospital, and they maybe carry it with them. That might be the best of what happens. Or they go from the hospital to the nursing home, and the discharging hospital doctor writes a list of their medicine, and it goes there. That's how it happens in practice right now in many settings. But the potential there to make something that really shares this and updates it as you go through these transitions, this is where you're going to get a lot of your decrease in errors, and a lot of improved safety. And a lot of discontinuing of unnecessary medications that just get continued on and linger and shouldn't be, but just because people aren't aware of things.

Chris Snyder – Peninsula Regional Medical Center – CMIO

Now we gave our doctors a home list, and we gave them a discharge. At discharge, we give them a home list. We give our doctors an active list. They reconcile it. Remember I said 70% of those patients were never theirs. We put a pharmacy in the mix also, and it's down to almost zero. First of all, physicians and providers in general, we don't really do a good job. But part of the problem with that also was the user interface was paper. There was no decision support, so I've challenged FDB and some other of our colleagues in here to say, guys, give us a better interface, so it matches up the drug classes. It matches up interactions, possible interactions.

That's our next version of reconciliation. And that also comes from our CPOE, so it's the same database, so you don't have multiple medication databases out there. That is very difficult to get to. It's difficult to get vendors to see that need. But that's going to improve your liability because now you're putting good information with a good user interface in front of a very intelligent person to drive positive, safe care, and that's where we need to go, but it's just not there. The technology is not there.

Alex Krist – American Academy of Family Physicians

As far as nursing homes, we increasingly are seeing data from Part D providers and Medicaid, which of course pays for a great deal of nursing home care available through SureScripts, and so increasingly when we have people coming in our door, we do see medication histories in that way. The other thing that I'll comment on, sort of the nirvana that Dr. Snyder was discussing, we were fortunate to have our electronic prescribing EMR application used in inpatient setting ED, ambulatory, and extended care setting, and so we were able actually to do sort of at discharge what medication should the patient be on.

And when the provider at the long-term care facility got the patient, more often the phone call at 2:00 in the morning saying we just got this patient transferred from the hospital, they actually could review and just accept or not accept those sort of recommendations from the hospitalist at discharge. Or similarly when the patient was admitted to the hospital through the emergency department, the team admitting the patient could say, okay, I have the home list. Yes, I want those four, and I don't want them on this one.

Essentially, medication reconciliation became a very different kind of critter, and we saw a dramatic reduction in especially errors of omission that often got corrected five or seven days later in the nursing home stay, for example. But you actually could accelerate that, and the reduction in the amount of return to the hospital that happened typically as a result of whether it's the diuretic or whatever it might be, those sort of short-term adjustments that got lost otherwise. I think there's real value there, and it's measurable value.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Jodi?

Jodi Daniel – ONC – Director Office of Policy & Research

Thank you. I wanted to start with a public service announcement and then talk a little bit about the DEA and the controlled substances since so many people have brought it up, I feel like it's worth at least talking about a little bit. Just from the public service announcement, I just want to echo the comments of Jessica Kahn about making comments through the formal channels, but not only that. Something that we said at the full committee meeting is that if you have comments or concerns about what we put out in the regulations, please not only tell us what the concerns are. But please give us suggestions that may be implementable across multiple different types of providers that we could do to address those concerns, so that we can more likely and more usefully take those comments and consider them to draft in our final rules.

With respect to the controlled substance reg, and I work for ONC, not DEA, so I cannot speak for them, but from their standpoint, obviously their mission is to control drug diversion. Of course, HHS's mission, and I think the mission of the folks who have been testifying here today are to improve health and healthcare. Obviously two very different goals, and I think that was evidenced in the proposed rules that came out from DEA.

That being said, DEA has been working very closely with HHS to try to figure out how they can meet their needs and their goals, as well as meeting our needs and our goals. It's been a very collaborative working relationship with them. I'm not saying that it will be perfect from the healthcare standpoint because, like I said, they do have other priorities and other responsibilities that they're obligated to meet. So I'm sure people will still have their questions and concerns, but I do think that there's been a lot of progress on that front.

At this point, we're still kind of – there's still been some collaborative effort, and we're still educating folks internally in the federal government about – some questions have come up about the connection of those regs and all of our health IT initiatives and efforts, and so I'll throw this out as a question to folks. I have my own thoughts about this, but I'd love to hear yours. Understanding that there are these different missions and goals, and understanding that we are trying to promote health IT adoption and improvements in healthcare that could come from health IT adoption. As far as the timing, and I know there's been a lot of eagerness to get final rules out on the street so folks can e-prescribe controlled substances.

What are your senses as far as whether it's helpful to have final rules out at the same time as other health IT rules with CMS and the ONC rules? Does that make it easier from a design standpoint, implementation standpoint, because you can kind of figure everything out together, or does it just throw more of a monkey wrench in things because there's kind of multiple different requirements of standards or whatever that have to be implemented at the same time? I just wanted your thoughts about the timing of that and what would make sense. I think that there might be some DEA folks that are listening, so I wanted to ask that and give folks an opportunity to comment.

Marc Overhage – Regenstrief – Director

I'll take a first crack, and that is, I think it's very helpful to have them at the same time because the workflow implementation that you have to do with these physician practices is tough enough. And to go back and do it again, even though it might be a relatively small adjustment, there's no small adjustments in practice, so I think it would be helpful to have them synchronized as much as possible.

Alex Krist – American Academy of Family Physicians

Yes. I would agree with that from a development standpoint. It's sort of both. It is sort of the monkey wrench and a good thing because it is a lot to deal with. But I would rather know it upfront and be able to deal with that, as we move forward, rather than to have to go back and retool.

Chris Snyder – Peninsula Regional Medical Center – CMIO

From the user side, I think it's imperative because there aren't too many surgeons who write anything other than narcotics, so you're really tying their hands. I mean, the general surgical group, I think it's 90% of what they write. They don't write anything but pain meds and anxiety medication pre and post op, so from a hospital standpoint, the same way. I mean, I do all their chronic meds, but for the acute treatment or short-term treatment, it's so important to document those narcotics and then where they've been sent, the next level of care. Because they do bounce back, unfortunately, with the wrong dose on taking too much, bottle empty, and we deal with that all the time in emergency medicine with our colleagues down in ED.

Chuck Frederick – eMDs – VP Clinical Applications

You know, I'd say it's important, but it's probably more important to get it right, so to do it in a cumbersome and get it out quickly and redo I would be much worse, I think, so that would be the caveat that I would throw out about that.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Thanks, Jodi. Jonah, are you ready? Jonah Frohlich, are you still there? I'll give him three seconds to figure out the unmute. He may have had to step away. One question I had was starting with Dr. Snyder and then moving to Dr. Overhage is one thing that you didn't say that you do for med reconciliation is get medication history from SureScripts. Do you do that?

Chris Snyder – Peninsula Regional Medical Center – CMIO

We have a certain population on SureScripts. Our ED physicians currently do not access that. The collection process entails nurses and the front-end provider actually collecting the list. We've talked about that. That is in our future, absolutely. We will be using that at one of the vendors, which will be SureScripts. There are others too, and our goal is to try to get that information into our local/regional HIE, so we can use that information through the ED, through the hospitalists, etc. And vice versa, by the way, sending it out that way too from the hospital standpoint or the other providers in the institution, everything but narcotics. Sorry.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

The reason I was asking is that there is this other issue about hospitals and others who are not prescribing, having to pay fees to get the medication histories, which are obviously much more important now that we have med reconciliation as being more and more important in different places. And I just wanted to ask. Dr. Overhage has been doing this for a while. As we think about – really looking, asking you about what sort of lessons learned because I think we now have \$600 million going out to state level HIEs, and probably every state in one way, shape, or form thinking about a wholesale approach like Chris to SureScripts and having those types of transactions. What are some lessons learned, because you've been doing this for a while, and seeing sort of technical issues, business issues, implementation issues, all those things?

Marc Overhage – Regenstrief – Director

Thanks for the question. I guess, first of all, I described a number of technological challenges. They're there, and they're real, but on balance, the value is hugely greater than the limitations technologically, and we know that the availability of medication histories at emergency departments ... hospital admissions and so on, even to clinicians who aren't e-prescribing has been very substantial. One of the best ways you can tell is if you shut it off, they scream, which is one of the great Octo Barnett tests for the value of health information technology. I have no question about the value and, in fact, value that people are willing to pay for, so that's another good indicator.

That having been said, it is a barrier to more widespread use, and I think that what we're seeing is the evolution now of, as we start to climb up the curb in terms of volume, the network externalities start to kick in, and the costs start to fall. We're not to the zero incremental cost range yet, but we're headed in that direction, I think. In other words, when you're only doing medication histories for one percent of the encounters in the country, it costs X. When you're doing it for 10% of the encounters, that cost equation changes. And when you do it for 90%, it changes even more. I think we're on that pathway. I'll be happy when we go further down that pathway, but it does work out okay.

The value, though, is so remarkable in terms of multiple uses and whether it's at the point of care, but also, and Dr. Snyder has mentioned quality. I can't remember. Maybe it was Dr. Stack talking about quality measurement, you know, followup assessment, critical event analysis, trying to understand. One of our ED physicians, JP Pannell, looks at every repeat ED visit within 72 hours across the entire state on a routine basis and have algorithms that look to see, well, is there a failure of communication? Is there a failure? What the heck is it that's going on? That kind of information is just invaluable in order to understand where the system has failed. Without that medication data, that's a key missing component.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Thanks.

Steven Stack – St. Joseph Hospital East – Chair, ER Dept

What are your sources for your medical history?

Marc Overhage – Regenstrief – Director

We rely on multiple, SureScripts for one. Our state Medicaid program does not participate in SureScripts, so we get directly from the state Medicaid program. There are a number of pharmacies that provide medications for the endogens in our state, and so we, as many of those as possible.

Steven Stack – St. Joseph Hospital East – Chair, ER Dept

...having the dispensing capacity?

Marc Overhage – Regenstrief – Director

Those who have independent dispensing, some of them, and of course not all their 56 FQHCs in our state, only about 15 of them have their own pharmacy, and I think 12 of those we get information from on a routine basis.

Steven Stack – St. Joseph Hospital East – Chair, ER Dept

How do you get it from them?

Marc Overhage – Regenstrief – Director

We build interfaces to their pharmacy system, so we pull multiple sources together in order to get as broad a picture as possible. Clearly, it's easier if that's all channeled through a common set of interfaces and a common set of services. But where we can, we try to bring in those other sources of data to augment it.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Great. Thank you. Go ahead.

Deven McGraw - Center for Democracy & Technology – Director

Yes. I just wanted to follow up, Marc, on something that you said that goes to the topic of alert fatigue and how many there are, and getting to the point where only those that are the most relevant are put in front of the prescriber. And you mentioned that I think it was the Partner System has worked it down to sort of 200 of the most relevant. Did I get that right? I just want to get a sense of sort of what would your recommendations be in terms of a process. Or a set of policies to sort of get us to a more kind of reliable set of alerts so that you don't have prescribers pinged repeatedly for more minor events that shouldn't rise to the level, so that we get the fatigue as a result?

Marc Overhage – Regenstrief – Director

It's a very good question, and I don't think anybody knows the answer for sure what the right process for that would be. But it probably revolves around the relative impact of those errors, both in terms of the frequency of the medication. For example, if I get an alert about a medication I prescribe rarely, I'm much more likely to take the time to look at it because I'm just a little, you know, I've already gone to the, you know, I had to think about it. If it's for something I prescribe every day, it's going to have to be a much pithier kind of issue for me not to feel offended and annoyed that the computer thinks it's smarter than I am. So I think that this probably, and I hate to say this, but it's one of those things that requires a research approach to work through what is the way to structure that value equation.

Now having said that, the other sort of stupid, easy approach that Micky would do, because he likes to get things done and make them worthwhile, is he would go to Intermountain Healthcare, to the Veterans Administration, to Partners Healthcare, to a few of the places that have rolled out CPOE and have been fairly successful at rolling out alerts. And in some informal conversations, my sense is those are actually fairly aligned. And so that first path that it might just be what are the common 100 among these places that have been doing it a while, and if there is some congruity, then Micky would be a genius, which wouldn't surprise me.

Deven McGraw - Center for Democracy & Technology – Director

My one other question has to do with a comment that's come up repeatedly on all three of our panels today, which is getting the patient more into all of this. Having copies of a reliable list of their medications, whether that's on paper or electronic. What would be your suggestions? There's a lot in the proposed rule about getting patients copies of their data, and we know that that will be a requirement under HIPAA once you have an electronic record that you give the patient an electronic copy. Not all patients are going to want it in electronic form. But, nevertheless, what are some suggestions to sort of get to make sure that that happens, and are we missing something? It seems to me like just getting folks a copy is like

step one, and that there's probably something that should follow onto that that we ought to be thinking about.

Alex Krist – American Academy of Family Physicians

I'd like to say something about that. That's a big component of a lot of the research that we're doing is around getting patients information, trying to promote patient centered care, share decision-making, patient activation. One of the first steps is not just getting them the information, but it's deciphering it for them. It has to be written in a way that it's meaningful to the patient. It tells them what is their information, how does it apply to you in your context, and what does that mean for you?

The patient often knows their medicine as this is the blue pill I take in the morning. So when you're thinking about prescriptions, there has to be some information about the how and the why in the context of them as an individual. I think that's really challenging to try and create that content and to give it to them in a format that's acceptable for them.

A lot of people talked too about how do you deliver it to them. Is it electronically? Is it paper based, things like that? I think the medium is less important. It's more the content, and then it's more important that it's easy to do for clinicians and that it's part of the ongoing process, so the act of doing the prescribing, the act of putting this together is also the act that generates the patient information so that you're not replicating work.

Chris Snyder – Peninsula Regional Medical Center – CMIO

We actually went through this process with our discharge process because getting inpatient pharmacy information to look pretty for a patient is difficult, and actually that's why our vendor has held off, so we've gone to FDB. I don't know how to get that interaction where, you know, BID so it's twice a day, and I would think that it wouldn't be that tough, but it seems to be very challenging technically. Getting a patient friendly document that's user friendly for all is difficult. I agree with the portability. I don't know how to make it available and every pharmacy out there has a kiosk you can look up your data. I don't know what it is, but people keep going to kiosks.

But there's got to be a way to see your medication online in a secure – and I go back to the banking industry. I can look at my stuff online anywhere I want to, and it's secure. So how do we get medications into a federal reserve for meds that we can access? Then we can give permission for you to access if you're my provider. How does that happen? It's not easy. This is very challenging.

Alex Krist – American Academy of Family Physicians

I think patients would be very interested in that access too, and there are a lot of stereotypes about who would and wouldn't use that. And a lot of those aren't necessarily true. Of course, as we move forward, that's changing even more.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Gayle, and then Steve, and then I think we have to wrap up to start the public comment period.

Gayle Harrell – Florida – Former State Legislator

One of the things we haven't really talked about, and I know we're running out of time, but this is something that we really have not addressed, and that is the differences in state laws. And how we're going to reconcile that so that those medications – we did touch on it in that the psychotropic meds frequently are not readily available to other physicians dealing with it. HIV medications also have a very specific use and indicate a specific condition, so those privacy concerns come into play, and I know with our privacy and security committee, we are dealing with some of those aspects. But for your medication reconciliation and also for prescribing medications, this presents a real challenge. Any comments or thoughts?

Chris Snyder – Peninsula Regional Medical Center – CMIO

Yes, I can. We have a problem with mid levels. We live in the DelMar Peninsula, so we have Delaware, Maryland, Virginia pharmacies we deal with. When we get our mid level providers to write an Rx for

Delaware, PAs have to have an authentication by one of us. So it's more than just what you're describing. I think the standardization of prescribing throughout the country, it definitely complicates the issues in many facets, so it's definitely a barrier to providing good care because it holds up prescriptions being dispensed. I'm not sure how to fix that, but I'll tell you, we see it every day just with using the mid level prescribers.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Great. Steve, last question.

Steven Stack – St. Joseph Hospital East – Chair, ER Dept

...all these panels today, but for the physicians who have been here, this has been a nice number of physicians relative to a lot of the panelists we have. I hope what we're all hearing is, I mean, there's the same and shared frustration from the clinician side. What we want is the right information at the right time and the right place regardless of the time and the place. So make it available to us when we need it, when we need it. And the challenge, not being disrespectful to any participant in this healthcare enterprise, but the overestimation of what the average patient knows, understands, wants to know and understand, and the underestimation of the value that the clinician brings to the table.

For some patients, knowing I'm on a sugar pill or a water pill is all that they are going to understand. Or if you give them, you have option A or B, and these are your statistics, they say, what would you do, doc? That boils it down. I'm here because I trust you. What would you do?

I'm just, to all three panels, but to this one too just because there are two of you who are doing this every day like I am, thank you very much for sharing that perspective because I think people have underestimated how much we have wanted to do this. And the stick side of some of this incentivization is really frustrating to those of us who share that frustration and feel like we're being penalized for behaving like rational professionals would if you were in the same circumstance we were in, so thank you to all of you. It's been very informative.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Great. Thank you. Thank you to all three panels, to this panel and to all three panels. It's been terrific. We really appreciate you coming. I think I can turn it over to Judy for the public comment.

Judy Sparrow – Office of the National Coordinator – Executive Director

Yes. This is now the public comment portion of the agenda. Anybody in the room wishing to make a comment, if you could please step up to one of the microphones at the table, and those of you on the telephone or on the Web, if you're already connected on the phone, just press star, one, to speak. And on the Web, if you would dial 1-877-705-6006. And just let me remind you to make your comments no longer than three minutes, and please state your name and organization. Anybody in the audience who cares to make a comment? Dr. Kaufman?

Peter Kaufman – DrFirst – Chief Medical Officer

This will be quick just in response to the state regulations. I think it would be very helpful for patients and certainly for vendors to have the government come down with a standardized format for paper prescriptions and a standardized format for paper controlled drug prescriptions so that you wouldn't have to have a different format for every state. And if you were practicing in a couple states, you wouldn't have to have different pads. For example, New Jersey has a different format for physicians, for PAs, separate for nurse practitioners from PAs, for veterinarians, and for dentists, which does not, to me, make a lot of sense.

I think a standardized format would be great. And even more important would be a standardized certification, either CCHIT or SureScripts Gold Standard, or something where an e-prescribing vendor or an EMR vendor had that standardization. That standardized certification that the different states would have to accept it rather than making the vendors jump through their own hoops. It would make more availability of different applications to the users, so it's not just for the vendors, but it would help the users as well. They'd have more choice, and they would know that the application was a quality application.

Judy Sparrow – Office of the National Coordinator – Executive Director

Thank you. Anybody else in the audience or anybody on the phone? All right. We have somebody else in the audience.

Don May – American Hospital Association – Vice President

My name is Don May with the American Hospital Association. I have to say, I've never listened to this much information on e-prescribing, but I learned an incredible amount. I guess what I wanted to say in particular to your question, Steve, about whether this is too much to ask for, for meaningful use. I listened to this, and in talking to hospitals on a regular basis, what we hear is that this is very important. We want to be moving to do this.

I think the problem we have is, first, the timing that's involved. And it sounds like your organization is probably working toward it, but you're not going to be able to do it soon. And the fact that it's not just this that has to be implemented. I think Jessica Kahn from CMS talked about how they rolled out those grants, and all the time and resources that it took, and I think at least in two states, I know for Tennessee, what made it succeed was having someone go out and individually talk to each physician, and doing that technical assistance.

I'm not so sure a race to the finish where all that isn't being done is really going to end up in a meaningful way, and so I think, to answer your question, it's absolutely a good thing. Should it be all or nothing? Probably not. Is it too fast? Absolutely. And I think about organizations, maybe like yours, that may be able to do this in 2012, 2013. They still get the incentives. That's great.

But then they have to hit the 2013 and 2015 program requirements. If they're just now getting to the 2011 requirements, how difficult is that going to be? This is important because I've heard the word incentive here a lot. We talked about the incentives. And Jessica Kahn even said, wow, you can get your Medicaid incentives even if you're not a meaningful user in the first year to help you get there. Remember, there are penalties on the end of this, and the stick is much bigger than the carrot here. And so this is a good definition. What we need to work for is something that isn't all or nothing, and that allows providers time to get there. And reward what they've done so far because my guess is you have a very good system in place right now. I would guess it's something you would consider meaningful. But under this definition, what you have isn't meaningful, and I think that's the problem with the meaningful use definition. Thank you.

Judy Sparrow – Office of the National Coordinator – Executive Director

Thank you. Is there anybody on the telephone? Okay. With that, I'll turn it back over to Deven and Micky.

Micky Tripathi - Massachusetts eHealth Collaborative - President & CEO

Great. Thank you once again to everyone. This was really a very rich and informative listening session really for the workgroup to think about all of the issues surrounding a key transaction for healthcare and for meaningful use, as we go forward. In terms of process, there's a workgroup deliberation around this, I think, a little bit later where we start to think about what are some of the issues that we heard and what might be some next steps, as it relates to the policy framework and recommendations to the policy committee. But let me turn it over to Deven and thank everyone again.

Deven McGraw - Center for Democracy & Technology – Director

Yes. We actually have a pretty tight timeframe. Our call is February 3rd. Yes. We have a call on February 3rd for 3 hours where we've got to really – it's our opportunity to put before the policy committee what our recommendations would be with respect to the rules that have been put out. And I expect that we'll be focusing, both on e-prescribing, as well as the lab piece that we dealt with on our previous hearing that we made some recommendations on, but I think we need to examine them in light of what was put forth in the rules, and figure out where to go from there. This will all be rolling forward pretty rapidly, and now that all our meetings are open to the public, this is actually something that you all could listen in on if it continues to interest you. I'll add my thanks to all who testified. We know it was a lot of

work, and it's going to be very helpful for us, as we try to think about what to put before the policy committee, and thanks to staff, as always.

Public Comment

1. It is very important to have a standardized format for e scripts. We do not have one today and each vendor is doing it differently. Please help our patients and us as pharmacists as we try to take better care and more efficient care of our patients. This technology should improve patient care, not put up more barriers. Thanks