

**Press Conference Transcript**  
**Report on Survey of Physician Adoption of Electronic Health Records-**  
**Release of NEJM Study**  
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**11:00 am CT**

**Speakers:**    **John Lumpkin**, M.D., M.P.H., Senior Vice President and Director of the Health Care Group, Robert Wood Johnson Foundation  
                  **David Blumenthal**, M.D., Director, Institute for Health Policy, Massachusetts General Hospital  
                  **Catherine DesRoches**, Ph.D., Assistant in Health Policy at MGH and Instructor in Medicine at Harvard Medical School  
                  **Karen Bell**, M.D. Director of the Office of HIT Adoption, Department of Health & Human Services  
                  **Richard Baron**, M.D., CEO, Greenhouse Internists, Philadelphia PA

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John Lumpkin:    Thank you and good afternoon. I'm John Lumpkin, Senior Vice President for the Health Care Group at the Robert Wood Johnson Foundation. Today the New England Journal of Medicine is releasing an article based on a critical survey of physicians across the country. As a reminder, this article is embargoed until 5 pm today.

This survey was funded by the Office of the National Coordinator of Health Information Technology at the Department of Health and Human Services, and it examines physicians' use of electronic health records.

This research, which is conducted at the Institute for Health Policy at Harvard and the Department of Health Policy at George Washington University School of Public Health, has resulted in two major reports on the state of adoption of health information technology. The first report was issued in October of 2006. Today in addition to the New England Journal of Medicine article, we're

releasing the executive summary of the second report. The full report will be available in two weeks on July 2.

The other speakers on this call will go into the results of the survey, but first I would like to talk about why we at the Robert Wood Johnson Foundation think health information technology is an important issue in health care.

It will not come as a surprise to anyone that health care in America is a broken system. Millions of Americans lack access to safe and effective health care. Even for those who have health insurance, the quality of care is dangerously uneven. In study after study, the facts are clear -- change is necessary. Facts are just numbers. Health care is about people.

Like most of the people on this call, we hear stories from friends and family of medical errors, of how physicians and nurses are becoming increasingly disillusioned with their profession, or of people who struggle to get the right care for their problem. We also hear about how America has one of the most expensive health care systems in the world, yet we rank poorly in (quality) relative to other industrialized countries.

Many other American industries learned that trying harder was not good enough, but by redesigning the works to engineer safety, effectiveness, and efficiency that high quality can be delivered. For too long it has been easier to find out about the best choice for a digital camera than the best choice for a physician or a hospital. For too long health care has been mired in a paper system where life and death decisions are made without the right information.

Health information technology has the ability to make sure that the right information is available when it's needed, and with built in decision support

and reminders, it can help people and their clinicians make the best possible choices.

As an emergency physician (who's) had to make vital decisions in the middle of the night without all the key facts, I understand how valuable it is to have information about the patient and about the latest treatments available at my fingertips right when I need it.

However, I'd like to put this allure of health information technology into perspective. Health information technology can only make a difference if it's implemented in the context of a quality improvement approach, redesigning health care that's delivered to improve safety, effectiveness, and efficiency.

Before I turn it over to the next speakers, I want to make a few global points that will be underscored by the full report, which you will - again will be available in two weeks. First, this report helps define some common language for what we mean by health information technology. Common definitions are important for us to truly understand who's adopting electronic health records systems and what kind of systems they are adopting.

Second, this report shows just that the barriers to widespread adoption of health information technology are still formidable. Many small physician practices are not yet at the point of being able to make - take advantage of health information technology.

Finally, this report shows that the promise of health information technology remains undimmed. There are many people out there who understand that while technology is not and never will be a silver bullet solution to our health care (ills), health information technology still continues to offer possibilities

to help improve the ways we deliver health care in this country so that people can safely get the right care at the right time.

Our next speakers are David Blumenthal and Catherine DeRosche. David Blumenthal is Director of the Institute for Health Policy and Physician at the Massachusetts General Hospital Partners HealthCare System in Boston. And during the 1970s Dr. Blumenthal was a professional staff member on Senator Edward Kennedy's Senate sub-committee on health and scientific research. He's a member of the Institute of Medicine and the National Academy of Sciences and serves on several joint journal editorial boards. He's also senior advisor to the Obama campaign in the health policy.

Catherine Desroches is an assistant in health policy at the Institute for Health Policy at Massachusetts General Hospital. She received her MS from the University of Massachusetts, and her Ph.D. from the Joseph P. Mailman School of Public Health at Columbia University.

She has played a key role in both national and international surveys of physicians in the general public, and she's been a co-author in numerous peer reviewed articles. Both of these speakers will talk about the survey, and we'll start off with Dr. Blumenthal. David?

David Blumenthal: Thank you John. I'm going to do two - three things in a very brief time. First, I'm going to embellish a little bit on what John said to put the paper in the context - the paper that's being released in the context of other activities that gave birth to it. Then I'm going to talk about what's new in this paper, at least in the sense of how it compares to previous work on health information technology, and then I'm going to say something very briefly about the highlights of the annual report of which you have an executive summary.

All this work, both the paper and the annual report, is the result of a multi-year collaboration between the Office of the National Coordinator of Health Information Technology of the Department of Health and Human Services, the Robert Wood Johnson Foundation, the Institute for Health Policy, and George Washington University, to shed light on the adoption, use and effects of health information technology.

Some of this work, including the survey that is being released today, was supported by the Office of the National Coordinator, some, including the annual report, was supported by the Robert Wood Johnson Foundation. And as noted, the report will be available in a couple of weeks and the survey's being released today.

So what's different about this survey? We all know that there has been - there have been data in the past released about the rate of adoption of health information technology. This survey concentrates on electronic health records adopted by physicians and ambulatory practice.

What's different about it is that first of all it's - there - it represents the development of a consensus on how to define electronic health records in daily use. The first time that that's been done, and therefore (reduces) a great deal of uncertainty about how to measure precisely what it is that physicians say they have or haven't adopted when they are surveyed.

As a result, the survey provides a baseline - a definitive baseline for future work to measure progress in promoting the adoption of electronic health records in the ambulatory sector. It also provides definitive - not definitive but representative national data on the perceived benefits of health information technology -- the benefits referred to by Dr. Lumpkin -- and it also provides the best and most representative available data on the barriers to adoption of

electronic health records. And Catherine DeRosche will fill you in more on the details of the report and its findings - I'm sorry, the details of the article and its findings in a moment.

I'd like to say a little bit about the annual report, which is supported by the Robert Wood Johnson Foundation. This is a nine chapter report. It brings together a host of material of very different kinds from many different perspectives on the phenomenon of health information technology. I'd like to give you just a few highlights.

The report has a chapter on the evidence that there are disparities in the availability of health information technology to physicians who serve vulnerable populations and those who don't. Obviously there's concern that a very expensive technology introduced in our free flowing rather unorganized health care system may benefit some groups more than others, and particularly may benefit groups that are well-resourced compared to those that aren't.

Our chapter, which looks at the admittedly incomplete data on this topic, does not yet find clear evidence disparities exist, though there are some tell-tale signs that they may. This is a subject on which we think a great deal of additional work needs to be done.

There's also a chapter on international adoption of health information technology, which compares the United States to other countries, shows the quite substantial and much faster rate of progress that's occurring across the developed world in the adoption of health information technology, much, much faster than in the United States. It also comments on some of the possible influences on rates of adoption from many cross national perspectives.

There's a chapter on consumers and their rate - their perspective on electronic health records, and also a summary of the incurrent information on their use of so-called personal health records, which are records under their control or to which they have direct access. And I think that one of the bottom lines related to personal health records is that there's a great deal of variability in current findings about rates of use of personal health records that need clarification in future work.

There's a chapter on regional health information organizations, which are the mechanism by which we are trying to connect computers in one organization to computers in other organizations. And the best I can say there is that these organizations which constitute the hope for creating this kind of a change of information are struggling at the current time.

So I'm going to stop there and turn over the podium to (Cate) Desroches - Catherine Desroches -- who will talk about the new England Journal article that is begin released this evening.

Catherine Desroches: Thanks, David. First I just want to say that our findings both sort of - just to echo something David said, our findings both amplify and extend earlier work that's been done in this area. We know from prior work that the adoption - that adoption is moving along slowly. Our findings suggest - using this strictly formulated definition of EHR, our findings suggest that nationally 4% of physicians have what we're calling a fully functional electronic health records.

Now this is a record that would include all of a patient's demographic and health information. A provider using this kind of record would be able to write and send orders electronically, view lab and imaging results electronically. The record would also provide a physician with a warning if they prescribed a

drug that a patient was allergic to or was already on another drug where there would be a dangerous interaction, and it would provide reminders for screenings and clinical guideline based care.

Now in addition there's another 13% of physicians that have a more basic electronic health records. The difference between our fully functional record and our basic record is the absence of what - of the clinical support - clinical decision support -- the warnings and the reminders for guideline based care -- and some of the order entry functions. So all together, 17% of physicians have an electronic record that either meets our most basic or our fully functional definition.

As found in other work, you know, these - the availability of these systems varies. Primary care physicians - they were more common among that group and more common among those practicing in large group practices. But even among physicians in our largest group size, which here we've defined as 50 physicians or more, fully half did not have an electronic health records that met even our basic definition. So we can see that adoption of this technology is still - it's still fairly low, particularly when we look at a very sophisticated system that our group of experts think would have a serious positive effect on patient care.

But there is good news in our findings. Although the adoption rates are low, we had 42% of physicians that said they had either bought a system and they hadn't implemented it at the time of the survey or that they were planning for the purchase and implementation of a system in the next two years. If these intentions are realized, we could see a good size increase in the number of physicians with a - within EHR over the next three to five years.

The second piece of good news from the study is that physicians who use these systems like them. Overall rates of satisfaction were high as were rates of satisfaction with the - both the reliability and the ease of use of these systems when providing patient care. So they're not finding them cumbersome to use, and they're not having a lot of problems with their systems going down.

Providers who use these systems also reported a number of positive effects on patient care. Majorities of physicians with a fully functional system said that they had avoided a drug allergy or a potentially dangerous drug interaction, they had been alerted to a critical lab value, provided needed preventive care, or ordered a critical lab test due to a prompt from an EHR while providing patient care.

They also said that these systems has a positive effect on the quality of their clinical decisions, on the quality of their communications both with patients and other providers. They felt that the systems helps them to avoid medication errors and helped them to provide care that meets guidelines.

Clearly the results show that we're a long way from mere universal adoption by 2014. When we looked at the m major barriers to EHR adoption among office space physicians, we found that the cost of the system was the most commonly-cited barrier. Physicians were also concerned about their ability to find a system that meets their needs or the needs of other providers in their practice, and they - there was considerable uncertainty about the return on investment of an EHR.

When we asked about incentives that might increase adoption, they are what you might expect. Knowing that cost was a major barrier, the two incentives that physicians most commonly endorsed were payment for the purchase of a

system -- and this could include sort of straight out payment or a low interest loan or grant -- and additional payment for the use of a system. Those were the two - those were two major facilitators. And we're not surprised by that, given their worries about the cost of the system.

The other major incentive that physicians endorsed was legal protection from personal liability for record tampering. So clarifying their - physician's legal liability and efforts to simplify the process of choosing and implementing a system would both be important steps to increasing the adoption rate.

But clearly our findings point to the importance of cost - of the cost of a system as a barrier to adoption. And this suggests that we may be able to significantly increase the rate of adoption by easing the financial burden on office space providers. And I think this is particularly true for providers in smaller, you know, one and two physician practices.

So developing a financial incentive structure that both helps providers handle the cost of implementing a system and provides additional reimbursement - reimbursement would address the biggest barrier to adoption. And I think that Karen Bell, who's going to be speaking in a little while, will talk a little bit more about some federal efforts that are currently under way.

So those are the main findings of the paper that will be coming out (unintelligible). And with that I'm going to turn it back over to John.

John Lumpkin: Well thank you so much. And at the national policy level, adoption of electronic health records seem to be pretty cut and dried. You know, doctors adopt them. However, when you get down to the front lines of health care delivery, the story begins to look a little bit different.

Richard Baron, who's our next speaker, is the founding physician of (Green Health Internists), a Five-physicians community based independent practice located in Philadelphia, Pennsylvania.

In July of 2004 (Green Health) implemented a fully featured electronic health records. Dr. Baron is President and everyone of (Philadelphia Equality), which is working to accelerate adoption of health information technology at the point of care to provide better access for patients with higher quality and lower cost.

He received his (AD) in English from Harvard, his MB from Yale, and trained in internal medicine at NYU Bellevue. In 2008 Dr. Baron will become the chair of the American Board of Internal Medicine. He will talk about the realities that he experienced in implementing in electronic health records in his small practice setting in Philadelphia. Dr. Baron.

Richard Baron: Thanks, John. It's really a pleasure to be able to share that ground level experience. And in many ways I think it confirms and echoes a number of findings of the survey. And I for one found the survey very persuasive and very valid as a prescription of some of the issues.

I think the first thing I would stress is that our environment is indeed a community practice. It's an independent practice. Two thirds of all encounters in the US happen in groups - physician groups of four or less, so in that sense, the environment we're functioning in is a typical environment that we need to think about if we want to see increased adoption of electronic health records.

And I would say to this group that the presence of an electronic health records has really transformed care in our office. And that is in all kinds of ways. We are much more likely to know what we need to know to meet our patients'

needs, and that ranges from what a doctor in our office said on the phone yesterday to a patient to whom they spoke, to what dose of medication a spouse might be on when the spouse is in the office and requesting a refill for the spouse who's not there, what happened on the last visit, all kinds of things in terms of information being available at the point of care.

Everybody in our office is now a clinical team member. You no longer need to be a medical genius to access the information in a chart, and non--physician staff routinely take on activities that in paper offices don't happen. And that represents more of an ability to interact with patients and meet their needs.

Information is presented in a context so that we see what the last laboratory result was or what the last weight was, or why a medication was stopped sometime in the past, which are really key clinical - is key clinical information to any practicing physician trying to practice medicine safely and responsibly.

And a variety of tedious and repetitive tasks such as prescription refills, referrals to other clinicians, have been automated and are less burdensome. We routinely now look at laboratory results and communicate interpretations by secure email within - less than 24 hours of when the tests are done, and we have secure email - we have email addresses on 58.97% of our patients, a number that I pulled out while preparing for this talk five minutes ago, out of our electronic health records.

We can run reports on diabetics with poor control who have not been seen and bring them in, we have received secure emails from peace corps volunteers in Bosnia who were patients here, and I think the doctors and the patients and the staff every day are less frustrated by what we do. And I would stress one of the findings that more comprehensive use actually leads to greater physician satisfaction like many kinds of information technology applications. And I'm

sure all of you find this in your own work -- the more you use it the more you get out of it. And that is definitely true here.

But I also have to tell you that implementing the electronic health record was the most difficult thing we have ever done in our practice. We - I had a 15 year relationship with a partner that almost ended in divorce in the process of doing the implementation.

And I think the survey is pointing to financial barriers is absolutely dead on. the experience in our office was that it cost us over \$40,000 per doctor, and that we saw a 2.5% absolute decrease in revenue in the year in which we implemented.

And then in business where your costs are fixed costs and your income as a physician is what's left at the end of the year, you can double a revenue decrease in terms of-of its impact on salary. And since that year, we were all working past midnight to do the switchover day after day after day working past midnight to do the switchover. It was not a financially rewarding things for us to do.

It disrupted every system we had in the office for doing daily work, and that - because again, if you're going to use it comprehensively, everybody needs to use it, and everything we do routinely to meet the needs of patients, whether it's returning phone calls or completing forms, the way in which we did that had to be changed overnight.

And it made us dependent on a technology we did not understand and could not maintain ourselves, obligating us to commit and additional \$60,000 a year for annual technology support costs.

I think that the major point is would make about the financial issues is that some of the perverse financial incentives built into the delivery system are in some ways magnified by the presence of information technology. It does not surprise me that so-called basic implementations are more common than comprehensive, because in the current reimbursement system in primary care, the reality is that we are paid based on the length of our progress note.

We are not paid that do many things that add value per patients. Email communication that saves visits is terrific for the patients. We think it's good for us. It makes us feel like better doctors, but we get paid for seeing people face to face in the office. We don't get paid for doing email consultations.

And to use the features that Dr. Desroches was talking about in terms of the decision support, all the information has to be in the record for the record to know whether to prompt you about a particular study or to tell you that there's going to be a problem. And getting that information into the record winds up being a whole new species of work for people in primary care, and it's totally unreimbursed.

And the current state of affairs is that insurance companies will only accept the bills in standard format from specialists, but they will permit specialists to produce their reports in any format they want, and we wind up having to accept the burden in the primary care office of translating that into machine usable information, which takes time and costs money, and limits the comprehensiveness with which physicians can use these products.

What will it take for others in the community to full adopt? I really think new financing strategies are desperately needed. The return, such as it is, is much more outside the office than inside the office. And again, in the current reimbursement system, a primary care physician is much more likely to get a

return on investments buying a new scanner that she can connect directly to the reimbursement system and start getting paid tomorrow, than she is for implementing an electronic health record.

We also need to see much more aggressive and comprehensive standard setting at the federal level. That improves the value case for adoption. By itself it's not enough to drive community adoption, but the absence of standards winds up increasing costs every time we transfer information around, which is a lot.

I think many of the obstacles can be overcome with appropriate support beyond simply purchasing hardware and software. Again, if we're really hoping for comprehensive adoptions, we have to look seriously at the costs. Not just for the hardware and the software, which are substantial, but also for providing the kind of training and support, which are hidden costs and vendors. When they quote these prices to doctors, want to quote the lowest price they can, and we get just far enough to be able to build with it but not far enough to be able to use the kinds of comprehensive features that are discussed here.

So I think it would be wonderful if we can come up with mechanisms to aggregate funding from the many stakeholder who benefit when physicians at the point of care adopt. And that's the kind of model that I would love to see move forward so that those who benefit are doing a better job making it financially worthwhile and reasonable for physicians in practice to implement. And that's what I have to say, John. I'd be happy to take questions later.

John Lumpkin: Thank you so much. It's truly a sobering presentation, but also the real potential of what the - how this can transform the office is enlightening.

Since 2001 reports of the National Committee on Vital and Health Statistics entitled Information for Health, the federal government has been a leader in the effort to adopt electronic health records to improve the quality and effectiveness of health care. Our next speaker will react to the survey and provide a perspective on the government's roles in health information technology adoption.

Karen Bell is the Director of the Office of Health Information Technology Adoption at the Department of Health and Human Services. She's a board certified internist with extensive experience in office practice, public health, academic medicine, physician support, and the commercial health insurance sector.

She joined the federal government in 2004 working first at the Centers of Medicare and Medicaid Service focused on supporting physician adoption of health information technology. She graduated from Pembroke College in Tuft' University School of Medicine, trained at Harvard, and completed an infectious disease fellowship at the University of Chicago Dr. Bell?

Karen Bell: Thank you so much. I would like to take the time to really thank the team at Massachusetts General Hospital who conducted the survey and researched and assembled the report, as well as the Robert Wood Johnson Foundation for its support in funding the support and making it widely available.

It is a thorough and robust presentation on where we stand today with overall HIT adoption in physician's offices, with health information exchange, by patients and consumers, and in relationship to other countries. As such, it is a true benchmark against which we will be able to measure future progress in multiple areas.

As far as the survey is concerned, I am particularly heartened by the fact that EHR adoption among physicians is clearly increasing, particularly when compared to the data that was published in October of 2006, again in the Robert Wood Johnson report, (that is), the intent of physicians to adopt.

However, the gap between those who practice in small to medium sized offices and those who practice in larger offices or organizations is continuing to widen. This underscores our need to concentrate on those clinicians who, as it turns out, constitute the majority of practitioners in the US.

The 12 sites which has been selected to participate in the Center for Medicare services EHR demonstration project were recently announced by Secretary Levitt just last week. These sites will be concentrating on this population - or this demonstration will be concentrating on this population of clinicians -- those in small to medium sized practices -- with the hope and intent that we will learn how best to bring support to these critical providers of care through EHR adoption and use.

The demonstration is designed to provide bonuses to physicians in the first years of the demonstration project for the adoption and use of certified electronic health records. Subsequent years will also provide additional bonuses for reporting of quality metrics and for improvement on quality metrics. However, the maintenance and use of the certified electronic health records is absolutely key for all bonuses moving forward.

So, in and to providing information from the MGH survey, the report itself provides a wealth of information on addressing key issues that currently stand in the way of widespread adoption of HIT. Particularly helpful for the Department of Health and Human Services are the chapters on how HIT can affect quality and cost of care.

They clearly spell out the problems with multiple approaches and mixed methodologies and provide guidance on how we may move forward to equivocally demonstrate the value of different forms of HIT to various stakeholders.

The chapter on international efforts to develop a nationwide health IT infrastructure is particularly helpful in framing the elements that are currently in discussion in the US now on how to bring this much larger, much more diverse from the health care point of view, country closer to its vision.

Over the course of the ensuing months and years, we will be moving forward to assure that the necessary standards are in place and in product, that appropriate incentives exist for the delivery system to adopt and use HIT, that there is support for the progress of adoption, i.e., how to actually go about doing it, and that clinicians will continue to be at the forefront in leading the effort.

So I thank you again David, (Cate), John, and all of your colleagues, and to you Richard for sharing the real insight of what this can mean for each and every one of us, not only as patients but also for as clinicians. We are - we in federal government are honored to have been able to support this endeavor. And thank you very much. I think we can entertain questions now.

John Lumpkin: Great. And...

Conference Coordinator: At this time if you would like to ask a question, please press star and one on your touchtone phone. You may withdraw your question at any time by pressing the pound key. Once again, to ask a question please press star and one on your touchtone phone.

John Lumpkin: Well why don't we take the first on the list?

Conference Coordinator: Okay. Our first question today comes Bob Davis from USA Today.  
your line is now open.

Bob Davis: Hi. Thanks for taking my question. I'm just wondering what you all think consumers or patients might do to encourage or promote the use of these systems.

John Lumpkin: David, you want to start off?

David Blumenthal: I think ask about them would be the first thing. I think physicians are very sensitive to patient requests in those much more consumer oriented age of medicine, so I think that would be the first thing they could do.

And the second thing they could do would be to pick physicians, at least in part, based on what - whether they have access to this technology. In many cases, this may mean picking a group or a institution as well as an individual physician. But I think that your question does suggest a very powerful potential mechanism for encouraging adoption, though one that may be somewhat stymied by some of the other barriers that have been discussed.

John Lumpkin: And I think that some of the polling results indicate that if you ask patients if their physicians have electronic health records, many more than there are physicians will say yes. That's because when they come in the office to get registered on the computer that only does billing and that kind of tracking, so it sometimes it's confusion to them. Richard, do you have any other insights to this?

Richard Baron: No, I think those are - I think David's points are very well taken, and I think that some physicians are afraid that the impact of using this technology will have on their interactions with patients. And those impacts can be real that - we opted to use wireless tablet computers so that we would be sitting anywhere in the exam room and be able to use them. That was subs more expensive and less technically reliable, but we thought would do - make the computer less disruptive on the physician patient relationship.

So I think to the extent that people are worried about - that one barrier that physicians may find is that they're not sure how their patients will accept it. I think patients coming in to doctors and saying, "Hey, how come you don't have this," is a - could be a very powerful lever.

John Lumpkin: Great. Let's go to the second person.

Conference Coordinator: Our next question comes from the site of Nancy Ferris from Government Health IT. Your line is now open.

Nancy Ferris: Hi. This is a question I think primarily for Dr. Bell. I'm interested there have been at least one previous survey commissioned by ONC and I wondered if you could discuss how these results compare to those and what the trends are indicating.

Karen Bell: Thank you very much Nancy. The previous survey that I think you're referring to is the one I mentioned, and that was published in the October 2006 on new -report at the Robert Wood Johnson Foundation. It can be found on their website.

Basically that survey indicated that we had around a 10% adoption rate, and to use a slightly different set of perimeters to define adoption, then this particular

survey does. But when comparing them all side by side, the bottom line is that there is an increase in adoption as high as going up to as high as about 14% using the same set of perimeter, so that again, we're very heartened that using exactly the same perimeters there is a definite increase in adoption over the time period of the two years that the surveys have been conducted.

I'd like to just underscore again that this is an actual survey. The previous results were based on a information that was (unintelligible) other sources and by a different technique. So this is actually the first survey that we have that goes out to a specifically significant sample that's robust enough to do some of the sub-analysis that we have in this particular survey. So we believe this is a very good starting point from that perspective.

Nancy Ferris: Okay, thank you.

John Lumpkin: Great. Next question.

Conference Coordinator: Our next question comes from the site of Joseph Conn from Modern Healthcare. Your line is now open.

Joseph Conn: Thanks. In the report it mentions that this is setting a baseline that might be used for future surveys, and I was wondering who was going to be doing that work and whether that will be carried out by CDC or someone else.

Got another question. If you could be specific about the breaking out who paid for what and how much for this work so far. And I have one other one on that, but the...

John Lumpkin: Well Karen, why don't you start out on the first one.

Joseph Conn: ...those will do for now.

Karen Bell: All right, I'll start out on the first one. Yes, this particular survey will move into the venue of the CDC. Nancy will be conducting the servicing moving forward. And in fact, this year's survey is already in the field using the same methodology, same questions. So we will be having more data coming forth regulatory from the CDC as they conduct those surveys. The issue of costs I'll go back to you, John. Maybe you'd like to start that discussion.

John Lumpkin: Well the cost of this process - this is a joint effort between us and the Office of the National Coordinator. And it's a two part process. The first part is the data collection and the survey, and then the second part is then taking that and putting into the context and developing the report.

We have funded the development of the report. We - the first two years I believe are grant was for \$600,000 and has been renewed for another two years. And then that builds upon the survey that Karen just talked about.

Woman: Hello?

John Lumpkin: And you said you had another question?

Joseph Conn: Yes. Well just to make sure, was that the grant was from the - our Robert Wood Johnson Foundation or (unintelligible)?

John Lumpkin: The grants or the report, which was based upon the survey, was from the Robert Wood Johnson Foundation.

Joseph Conn: Okay.

John Lumpkin: The grant for doing the survey was from the Office of the National Coordinator.

Joseph Conn: And how much was that?

Karen Bell: I'll jump in here, (Joe). The Office of the National Coordinator has basically paid \$3.6 million over three years. Not just for this survey but for the development of the standardized methodology to do the survey. This survey - for the development of standardized methodology to do a hospital survey and for analysis of a hospital survey, which will be presented in - later on in 2008, so it is for a larger piece of work than just this survey over a three year period.

Joseph Conn: Can you say how much of it was for this one?

Karen Bell: I actually don't have that information with me right now Joe. I can get that for you.

Joseph Conn: Okay. Well my final question is this, is that you've broken - broken the world into two parts, basically EHRs and fully functionally EHRS, and we have the CMS program that is requiring - from what I understand, (Carrie Weims) was saying at the last (unintelligible) meeting that they're going to require some sort of certified EHR to be used by physicians participating in that.

My understanding is, is even these fully functional EHRs wouldn't meet (unintelligible) 2008 criteria, because they don't have - the list here is not listed the summaries - the clinical summaries that will be in the 2008 criteria. Obviously the basic EHRs don't even meet the 2007 or previous years' criteria.

So do we have a situation here where we're - we may be expecting way too much for what's out there in the world?

Karen Bell: This is Karen Bell. I'll respond to that question as well. I think that we all recognize that EHRs are evolving and growing as time goes along. Even in the certification process, the initial certification had a basic set of functionalities that have grown over time so that 2008 certification process will make available EHRs that do have interoperability of (unintelligible) data in them for instance, the ability to share clinical summaries as well as improved functionality.

Over time, the measurement capability of the survey will mesh or interdigitate I think more closely with the certification process. Right now we're tracking both the survey results and we are looking at the certification process to get a better feel for how that interdigitation actually is occurring. So if we need to make some significant policy changes or some - take some different directions, we can do them. But this is a very helpful way of certainly guiding our office with respect to the certification process.

John Lumpkin: Thank you and let's move on to the next question.

Conference Coordinator: Okay. Our next question comes from the site of Tiffany Reid from National Underwriter. Your line is now open.

Tiffany Reid: Hi. Good afternoon. Thank you for taking my question. How do you believe that this will affect health insurance providers, both, as you were saying, that it was costing \$4,000 per doctor, there was a decrease in revenue, and there were \$6,000 in technical support that was being paid out of - paid by the hospital. How do you believe this is going to affect health insurance providers and re-insurers as well?

Richard Baron: John, this is Richard Baron. Could I take one whack at that?

John Lumpkin: Please do.

Richard Baron: Sure. First, to be sure that the numbers are right, I think you may be missing a zero. It was \$40,000 per doctor -- four zero -- \$40,000 per doctor, and \$60,000 per year in annual support costs.

I think one of the questions people need to ask is how much are we spending, because we don't have this information technology in place. And some of the issues there deal with just the nuts and bolts of the way in which information gets exchanged in the world of health care. We in our office are often providing clinical information to health insurers, and we're doing it on the telephone or we're doing it by filling out forms on paper and faxing it to them.

And though on the physician side we very appropriately describe that as the hassle factor, and it's one of the things that makes it more and more challenging to practice these days as those information demands escalate -- and divisions at the point of care have to meet them so that their particular can take available of everything from formularies that may be available to testing that the patients need that the insurance companion requires certification for -- but that also represents expense on the insurance company side as they take this information that's coming in on paper or on the phone and transfer it into their systems.

And I think that insurance companies may well find that it is in their interest to find ways to support acquisition of information technology in the practices to decrease their operating costs. And what they're looking for and what I think they need to do that is some model where they're not the only ones

paying. And so ways that involve multi-payer aggregate approaches to providing that funding could wind up lowering costs for everybody.

John Lumpkin: Let me just add in another component. There was a study that was done a few years ago by Blackford Middleton, who looked at where the winners and losers are in HIT. And it's clear that the insurance companies save money with adoption of HIT, because of ending of - reducing the number of duplicative lab tests and great effectiveness. So they're the ones who have the potential for savings, whereas the physicians, as Richard was talking about, are the ones who have to put out the money for the systems.

And that's the reason why there's a lot of discussion about changing the incentives in such a way that the people will have to do the capital outlay can share in the reduction to cost to the entire health care system.

Karen Bell: And this is Karen Bell. I think I could also underline the fact that there are a number of pay for performance programs out there that do just that. And in fact, programs like Bridges to Excellence, the program in California that's been supported by the Pacific Business Group on Health were examples of how CMS might in fact develop the pay for performance program that I've described a little bit earlier -- the EHR demonstration program -- so that until overall reimbursement can be addressed in a different fashion, something as simple as pay for performance incentives that align more with adoption and use early on in the process and then migrate to improved quality has been demonstrated to be successful.

John Lumpkin: Great. Well thank you for the question. We'll move on to the next.

Conference Coordinator: Okay. Our next question comes from the site of Pamela Dolan from American Medical News. Your line is now open.

Pamela Dolan: Hi. Thanks for taking my question. I was just curious about in the beginning you said that part of the report focused on some of the key definitions for health IT, and I was just wondering if someone could clarify that some more, and tell me how their definitions are different from the reports that the National Alliance for Health IT prepared for the ONC and (unintelligible) recently, and if there's any fear that there's going to be community groups forming their own definitions and things.

John Lumpkin: Catherine or David?

David Blumenthal: Well what we did is - I can't speak to the alliance definition. Perhaps Karen can speak to that. We recognized very early on that if we were going to measure adoption, we needed to have a standard definition or a defensible definition of electronic health record. In the past, many efforts to document rates of adoption had simply asked doctors, do you have an electronic health records, and counted them as having one if they said yes.

So what we did is we put together a expert consensus panel, which represented HIT experts, measurement experts, health policy groups representatives actually of the American Medical Association and the American Hospital Association, people from community health centers. Just a great variety of organizations.

And we started with Institute of Medicine framework for defining a electronic health records, and then used that as a way of organizing our discussion and came to agreement on what we thought was the set of functions that had to be present in order to call something a fully functional electronic health record. And those cons tinted what we defined to be the fully functional electronic health record.

Now that group was sponsored by the Office of the National Coordinator, and the Office of National Coordinator's representatives were (unintelligible) partners in the development of that. When we actually analyzed our data, we realized that the rates of adoption for the fully functional electronic health records were so low that we were missing - if we just reported the 4% number, we might mis-portray the actual state of adoption.

There are another 13% of American physicians who have begun recording health information electronically, but they hadn't reached the fully functional state, so our group internally development an alternative definition. The basic definition I would say is - was more of a construct of the research team. The fully functional definition was a construct of this expert consensus panel.

Karen Bell: And this is Karen Bell. And I can jump in and take it from there, because I think that the real difference between the work that was done by (unintelligible) HIT and the work that has been done by this particular group in this circumstance has to do not so much with the functionalities engaged, but how does a definition of an electronic health records for instance compare to a definition of an EMR.

There have been a number of situations where these mnemonics such as EMR, EHR, PHR have actually been used interchangeably both as bills are developed on the bill and in marketing materials.

So rather than get to a level of specificity that the work that's been done and shared with you today addresses, the definitions done by (unintelligible) HIT were designed to differentiate among the various approaches that are used to essentially define different types of technology.

With that in mind, both EHR and EMR are different from a PHR in that the EMR/EHRs are provider controlled. Something called a personal health records is patient controlled. So there's a differentiation between those two aspects.

Within the EMR/EHR lexicon, the difference there is not so much again the functionalities of what's happening now, but as we move forward into 2008 and beyond as interoperability becomes a very real part of EHR, the real difference between an EMR and an EHR is in fact that interoperability. So it is used to differentiate between the two.

Clearly the work that's been done here, as David suggests, looks at the various functionalities within the electronic health record/electronic medical record. The ability to acquisition information from other sources, as mentioned earlier by Richard, will be an important part of EHRs in the future and will be assessed as they move forward, so that it's really very complimentary work.

John Lumpkin: Okay. Well thank you for the question. Let's move to next in line.

Conference Coordinator: Our next question comes from the site of Matthew Weinstock from Hospitals and Health Networks. Your line is now open.

Matthew Weinstock: Hi. Thanks for taking my call. This is I guess for the folks at Mass General and perhaps Dr. Baron you can answer it too, and then I have a follow up afterwards. Did you look at the affect of the new relaxed stark regulations on EMR/EHR adoption? And then for Dr. Baron, did you ever consider with those relaxations, looking towards a hospital provider as a partner in your efforts?

Catherine Desroches: This is (Cate) Desroches from Mass General, and I can answer the first part of that question. When the survey was in the development, the (stark) - the changes to the (stark) rules were sort of - they weren't final, so what we did do was look in the (unintelligible) - we include a question about concerns about the legality of accepting an EHR donated from a hospital. That was our - that was one of the things that we looked at. And it was not a big concern among our physicians. And then the post - we - so we don't have any data on post (stark) - post changes in the (stark) law.

Richard Baron: And this is Richard Baron. I think that certainly anyone who wants to step up and help fund acquisitions on the practice side is welcome, and anything that people can do to expand the potential funding partners that physicians can go do I think is also welcome.

I think that the realization of the (stark) regulations - it's complicated because - in terms of what it's really going to do. Yes, hospitals have access to capital that physicians don't have access to. At the same time, I think the numbers involved in really doing this for providers are as unfavorable for the hospitals asking as sole actors in some ways as they are for physicians.

And if I were on a hospital board and accountable for seeing an appropriate return on investment and investing in primary care information technology came along, and next to buying a new scanner that would generate fantastic margins for the hospital, I think it's been difficult for hospitals to buck that particular financial reality as well. So I'm not sure. I haven't heard from any colleagues that that relaxation has had a major impact on their perceived access to this technology. .

Matthew Weinstock: And for Dr. Bell, I'm wondering - you mentioned earlier that you're going into the field with a study on hospitals. Could you expand a little bit on what that is, and when we may see those results?

Karen Bell: I can. And I think (Cate) is free to jump in here as well. The message that the General Hospital Group has basically gone through the same process as they did with the physician's survey to develop a set of validated and tested questions on assessing hospital adoption.

They've been working - we've been working with the American Hospitals Association, which does an annual survey on its own to incorporate these particular set of questions and to assure that there is an appropriate sample size in terms of response.

That survey is in the field right now with the American Hospital Association. We expect data coming to - from that survey to go to the Mass General Group this fall. They will then analyze that particular set of questions that are related to this particular project and should have those results by the end of the year.

Matthew Weinstock: And will you use the same definition for EHR that you're using here then?

Catherine Desroches: No. The definition is going to be slightly different because of the way that hospitals adopt these systems is different than the way an office based provider would, so we need to be aware of how hospitals may implement a system by department or they may implement different pieces of a system sort of one at a time. So - and the things that they're using the systems for may be slightly different also.

So the definition of an in-patient electronic health record will be slightly different than the definition of an outpatient record, which is what we've defined here in this paper.

Matthew Weinstock: Thank you.

John Lumpkin: Great. Thank you and it appears our last question is in queue.

Conference Coordinator: Okay. our last question comes from the sight of (Jo Wexler) from Managed Health care Magazine. Your line is now open.

(Jo Wexler): Thanks for taking my call. It's sort of been partly answered already, but I'm wondering if you have any further suggestions of what insurers and payers can do to overcome some of the barriers too for their adoption.

Catherine Desroches: Well I could answer the first part - I could answer sort of generally from our survey data. We know that one of the major facilitators of adoption would be additional payment for the use of a system. So pay for performance mechanisms that add additional reimbursement for providers who use these systems could be a good step in that direction.

Karen Bell: And this is Karen Bell. I could probably add a few more if I may. I think one of the things that would be important is for insurers in a given locality to work together with other stakeholders in a given locality to have consistent programs around pay for performance and perhaps have other consistent approaches to develop programs that could better support clinicians.

Another area that would be very helpful would be to help support the implementation process itself so that physicians really understand what it asks

to go through the implementation and how to do it most effectively and efficiently.

Again, these are approaches that whether it's a pay for performance or whether it's support in - for implementation, that are generally most effective when done across the board and incorporate all the insurers in a given area. So that - I think that's another very important point that insurers join together with each other and with other stakeholders in various areas around the country.

Richard Baron: This is Richard Baron. And I would underscore what Karen just said, and even try to take it a step further.

I think that the costs are large enough that it is difficult for any (actor) in any region to say, "Oh we'll just pick up at the tab." And at the time, the need is pressing enough and the gains for are regional delivery system are large enough that I think trying to come up with regional organizations that look to create stakeholder collaboratives to help fund and support implementation

Pay for performance could be a step, but the challenge with pay for performance is that first of all it tends not to be enough - assured money to actually everything somebody over the hump. Second of all, to get the pay for performance, you kind of already have to be there in many of the programs. And in the fragmented delivery system and payment system that we have, it's just different to put enough funding together in one place to make it happen.

I really believe that the stakeholders who benefit go well beyond the insurance companies, include the pharmacies, include the hospitals, include the laboratories. And when you start thinking about this as a problem that everyone who exchanges information with primary care offices owns a piece

of, you can start to imagine a lot of people who potentially could support it. And I think regional experiments of entities that exist to pool funding and push out a comprehensive product could be a very promising strategy to make this work.

John Lumpkin: Great. Thank you. We have some more questions on the list. Let's go to the next one.

Conference Coordinator: Okay. Our next question comes from the site of (Jeff Day) from (Healthcare Policy Report). Your line is now open.

(Jeff Day): Thank you very much. I have a couple of questions. I noticed in the data that among those doctors who have adopted EHRs, you see some differences based on the basically the age of the doctors or the - how many years they've been practicing.

Catherine Desroches: Yes.

(Jeff Day): And to what degree is this a barrier that, you know,, younger doctors are eager even to do this, but doctors who are, you know, in their 60s or 70s are saying, "Gee, I don't want to go through this point in my career." Is that an issue?

Catherine Desroches: Well I guess you could think of it as, you know, doctors in their 60s and 70s, their return on investments is not long enough for them to realize any savings from one of these systems. But you are right that we do see a slight increase in the number of physicians who have theses systems among those who have been in practice for less - for like 20 years or less. But it's not as dramatic as we might have thought, so the rates for adoption are low across all years of practice...

(Jeff Day): Yes.

Catherine Desroches: ...and we see a very small decrease as age increases.

So I'm not sure it's as much a barrier as we might think it is, although we do hear from residents who say things like, "I don't want to go and practice somewhere that doesn't have a system" after being trained in a place that had a system.

(Jeff Day): Yes.

Catherine Desroches: So we may see, you know, as these doctors move into their own practices, we may see some increase there.

(Jeff Day): Okay. My other question is, the regional health information organizations that Dr. Baron (unintelligible) was talking about, although not directly, the report says these are unclear, you know, these things financially doable. There's some problems with that.

One of the - perhaps the most successful (rio) is that - Indiana Health Information Exchange, and that has been supported by a major philanthropic effort. That (rio) is set up differently than most from a technology standpoint. As I understand it, the (rio) hosts a - essentially a big database. Doctors with different EHR systems can interoperate via that central database.

So the systems are less costly than these ones which are interoperable, essentially, and their costs are lower in that fashion because the central database makes that a less expensive proposition. Is that a - an approach that could improve adoption and support the concept of (rios)?

Richard Baron: This is Richard Baron. And just to common on one small piece of your question and leave it to others on the call who know more about the (rio) world than I do. Actually was not talking about (rios), because (rios) - the focus is creating an infrastructure, as you described, in which exchange can happen.

And what I'm talking about - the model I used is (rios) are creating a telephone system or a telephone network, but one of their business problems is in the world we live in -- and this survey shows it -- very few people have telephones. And if people don't have telephones, there's no business case for building a telephone network.

And so what I was making a case for was thinking about he probably not as funding exchange organizations when no one has telephones, but funding telephones. And that's a very different model than (rios).

(Jeff Day): Okay, thank you.

David Blumenthal: I have another -- this is David Blumenthal -- I wanted to add another thought to that. The question of - you have to ask yourself why would independent organizations who do have electronic health records -- and a number of those exist in my hometown of Boston -- why would they exchange record information? So why would they invest in a system that has some cost? It may not be a huge cost, but it's - there's some cost, to make it possible for their data to flow from their own system to some other system when a patient went to that other system.

Now the right answer of course is that it's better for the patient, but the problem is it's not good for the provider. The provider may - providers love to get the data from another place, but doesn't necessarily want to share it. The

economic incentives are against doing that, because it makes it easier for patients to leave your system and join another system.

And in fact, this is the exchange of information like the national highway system. The information exchange capability is very much a public good. I think there is, as far as I now, no private viable private economic model for health information exchange. Now there will always be examples of altruistic groups and localities where some group has had inspired leadership and may be a very generous foundation in some charismatic, you know, contribution, but to build a national information system on the basis of charisma and charity probably not going to work over the long term.

Karen Bell: And this is Karen Bell. I'd just like to also add to the conversation if I may. From the perspective that there are a number of local entities that are exchanging some information -- and you brought up the Indiana group as one -- the model that they use is certainly working for them and in their particular region.

I think there are two other major considerations though that need to be added to the discussion. One is that there are some entities that exist on a national level that would need or have a desire to share information locally, but can't do it in 100 different ways. They have to be able to do that one way because of economy of scale.

For instance, the Veteran's Administration cannot participate right now in local health information exchanges if each of them are constructed in a unique way. And that is just one example of a national organization.

Secondly, no matter what type of a system one puts in to be able to access data from multiple sources, whether it's a banking system that helps data bank

or whether it's a health information exchange organization, the investment is significant. And as we move forward towards the future, one would hope that that investment is not one that ultimately would preclude sharing of data on a wider scale with for instance other national organizations.

So the real - I think the real issue here is how can we move forward in a way that information can be shared in such a way that it brings value to health care at the point of care, and at the same time is developed in a cost economic way so that ultimately that information, as it needs to be shared in a - on a wider specter, can be without a lot of additional cost.

John Lumpkin: We still have a couple of questions left and we're starting to run out of time, so let's move to the next question.

Conference Coordinator: Our next question comes from the site of Whitney Wyckoff from CQ Health Beat. Your line is now open.

Whitney Wyckoff: Hi. My question relates to - well you mention that there are costs for practices involved in this, and you typed out some of the annual costs for IT support. And based on this survey, is there an indication that health information technology can save substantial amounts of money for the health care industry as a whole over a long period of time?

Catherine Desroches: Well we don't have direct data on that in our survey, but there is a body of work put there that suggest that there could be substantial savings from widespread adoption of this technology. What's not clear and what is pertinent to our survey is it's not clear that these savings are going to accrue to the provider.

Whitney Wyckoff: Yes.

Catherine Desroches: And - well we don't - but we're - we don't specifically address that in the survey findings.

Whitney Wyckoff: Okay.

John Lumpkin: Next question.

Conference Coordinator: Okay. Our next question comes from the site of Nancy Ferris from Government Health IT. Your line is open.

Nancy Ferris: Thanks. I just wanted to follow up on the (rios). Dr. Blumenthal mentioned in his opening remarks that (rios) are struggling, and that's not news to any of us. Does the survey - is there any glimmer of hope in the survey when it comes to (rios)?

David Blumenthal: This is David Blumenthal. We didn't - the survey was not about (rios) per se, but we did incorporate the results of the survey that was done by (Ashish Jah) and colleagues at the School of Public Health (then) was published in health affairs and they are in the process of updating that information, and we sort of used their most current information and insights. So it's a separate - the report has data from multiple sources in addition to the survey, and the survey itself did not deal with (rios) per se.

Nancy Ferris: Oh okay. Did the - in the newer information from the School of Public Health -- did it indicate any change in the situation with regard to (unintelligible)?

David Blumenthal: You know, I think I probably should defer on that, because I think that that information - yes I think that the first cut, which was published and is...

Nancy Ferris: Right.

David Blumenthal: ...accessible to you was very - was not very encouraging.

Nancy Ferris: Yes.

David Blumenthal: But they're in the field with their second work and I think it would be premature to talk about it.

Nancy Ferris: Okay. Thanks.

John Lumpkin: (Alright). Next question. Back to Matthew Weinstock.

Conference Coordinator: Your line is now open.

Matthew Weinstock: Okay, thanks. Everyone on the line has talked about the need for incentives or some sort of cost model to help physicians implement EHRs. And I'm wondering if you all are concerned that either through pay for performance or these regional collaborative you talk about, that we're just going to keep sort of nibbling away at the edges without some sort of wholesale change to the reimbursement system that really looks more at the continuum of care. So that's the question.

John Lumpkin: Well I will - (gentlemen) can - I will start there and say that looking at the whole reimbursement system to - in the continuum of care is an issue that transcends health information technology. It is clear that our system has all kinds individuals of wrong incentives that tend to impede not only adoption of health information technology, but implementation of quality improvement of a method and increasing the efficiently and the effectiveness of the health care system.

And there's some notable activities that we are funding as - at the Robert Wood Johnson Foundation to begin to look at that through the Quality Alliance Steering Committee headed up by Mark McClellan and (Caroline Clampsey), we're funding a study looking at episodes of care as an alternative payment system.

Also looking at another version of that through the Prometheus Initiative headed up by Francois de Brantes. So I think that there are a number of things that are going on looking at alternative payment systems that would put in the right incentives. but most of those efforts are not specifically focused on health information technology but the broader quality issues.

Richard Baron: And certainly -- this is Richard Baron -- in the current primary care environment, the dysfunctional things that John mentioned about the reimbursement system are particularly savage when it comes to questions about adoption of health information technology, because there really is not a business case for it.

And yet if it's not adopted there and I the current reimbursement system adoption is simply not supported. And if it's not adopted there, then patients at the point of care where they interact with the health care system are not going to have the benefit of this technology.

John Lumpkin: Great. Well that is our last question. We thank all of you - the 25 of you who stayed on the call throughout the length of it, and for the quality of questions.

This is a - an important milestone in the adoption of health information technology, but as was mentioned, the fact that we do have a survey that guides the development of this report, that establishes this baseline with

rigorous approach, enables us to better monitor the advance towards the adoption of health - of electronic health records and health information technology, something that all of us on the call believe is essential as a tool in moving forward the other efforts to improve quality.

So once again, thank you to the speakers and for those with the questions. And I think we're at an end. Goodbye.

Richard Baron: Thank you.

Karen Bell: Thank you.

Catherine Desroches: Thank you all.

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