NATIONAL QUALITY FORUM

Moderator: Christine Cassel
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Operator: This Conference #: 75987710.

Welcome everyone, the webcast is about to begin. Please note today's call is being recorded. Please standby.

Good day everyone. Welcome to Building the Foundation Data for Systematic Healthcare Improvement.

Please note that all public lines will be muted during the course of the call today and you will have the opportunity to join the live discussion later in the program today by pressing star, one. These instructions will be repeated later in the program.

If you need assistance at any time today, please press star, zero and an operator will assist you. Or you may send an e-mail for technical support to nqf@commpartners.com. That e-mail address is currently displayed in the chat box area and will remain there throughout today's meeting.

You will also find a number of resources in the links area, simply click on the link of your choice and they will open in a separate web browser window, from which, you can print or save a file by clicking the appropriate icons in the toolbar.

During the live discussion period, your lines will be able to be open. Please remember to use your mute button when you're not speaking or presenting to reduce background noise.

And now it is now my pleasure to welcome to the program, Dr. Christine Cassel, Chief Executive Officer of the National Quality Forum. Dr. Cassel, please go ahead.

Christine Cassel: Thank you. Allow me to welcome everyone along with my NQF colleagues and our guests, Arnold Milstein and Elliott Fisher.

We are very pleased to have a chance to share this work on data for systems improvement with the wider audience on this webinar.

It's important – the first thing to thank our supporters, the Peterson Center on Healthcare and the Gordon and Betty Moore Foundation who supported an initial conference and work on a white paper that it's been posted for public comment and to which we are seeking reactions and including to this webinar.

I also want to recognize both Elliott and Arnie. Elliott as you know from the Dartmouth Institute and Arnie from Stanford Clinical Excellence Research Center, both of whom have contributed a lot as thought leaders to the field and understanding how systematic improvement can occur, how quality measures are used to drive improvement and where the data sources are to access the kind of information that we need.

It's also I think a wonderful convergence of the Peterson Center's focus and interest on value in high performance along with the Moore Foundation's interest in data, in systems engineering and health care.

So, the background is that we're trying to ask, as we look at how to look at health care more as a system and as a complex adapted system, more data is needed to support systematic improvement. We all are familiar with using various performance metrics but often those metrics are not timely, are not flexible and don't adequately represent the full-range information that people need in order to improve something as complex is health care delivery.

In fact, while some pioneering organizations have done this, have been successful, it's not been easy for most organizations in the midst of a world where we're all seeing more and more access to data of all kinds, and access to

all kinds of devices. Somehow in health care, harnessing and effectively using the growing amounts of data that are available for improving care has had less success nationally.

So this is one of the findings of the study that I co-chaired last year for the President's Council of Advisors on Science and Technology asking exactly this question, with the group of colleagues who are engineers from other industries as well as from health care to say, what are the barriers to having health care adapt more broadly and more smoothly and more systematically these approaches to reducing ways and improving reliability in the – and personalization of care at a time when we are ought to be able to do that in the data-rich environment we are.

We found a number of barriers to this scaling up and I urge you if you're interested to go on the PCAST Web site and access the full report.

But the focus of this work is – comes out of two of the central recommendations of that PCAST report which is that more data needs to be made more available in health care and that data needs to be turned into meaningful information or what we called data analytics needs to be a more common skill and more common resource for health care.

There have been in fact multiple actions already over the course of this administration to liberate data. Many of you have heard that phrase initially led by Aneesh Chopra and Todd Park, the Chief Technology Officers within the White House. And with the idea that, the government does, because of it's central role in managing a large tier program for Medicare and Medicaid, but as well in doing public health monitoring through CDC medication, monitoring through FDA and other agencies.

There are a lot of federal data available, but not talking to each other, not coordinated and not accessible in terms of realtime for use by provider systems in the – on the ground. Much of this data liberation is intended to drive greater transparency for public reporting and for other kinds of use. But as many of you know, those data sets are not always easy to manipulate, to

use and to access. So, there's more and more innovators coming into the field helping to develop tools to do that.

But of course, federal action is only a part of the equation. And the private sector plays a critical role here too both at the regional level with health care collaborative and broad health care systems. And also hospitals who are developing data banks of their own real-time data that can drill down and look at specific units and even specific providers.

Many are beginning to use things like Toyota Production System method, Six Sigma, ISO 9,000, other kinds of tools drawn from engineering to use that data to drive reliability and produce waste. But often front line doctors and nurses and skeptical of these approaches and don't really – even if they can get the data, aren't sure how to use it.

So, that's what we're here to talk about are the recommendations from the conference supported by the Peterson's Center and the Gordon and Betty Moore Foundation towards what needs to be done to further accelerate access to data for improvement.

So to, to give you the highlights of the outcome of the conference, I'm going to turn this up to my colleague, Rob Saunders.

Rob Saunders: Thanks, Chris. This is Rob Saunders from NQF and I'm just going to give you a very quick overview of what things – what was discussed in terms of this project. And, even though the – we've muted the lines at the beginning of the call, just for noise, we also do have a chat box in the lower left hand corner of your screen. So, if folks have comments or questions along the way, we asks folks to submit those there and then we can start having that – start having a discussion and seeing where the comments are, and can ask speakers to respond to that as we go. And then of course we will start opening line in just a few minutes.

So, if we go to the next slide, there are three main themes that really came out of this work. One of them was the fact that we know that there's (inaudible) where health care needs to improve in terms of quality and safety, and in terms of cost, and the efficiency and value. But we – we also heard in many

of the phone calls and meeting and discussions we've had with stakeholders, that there are folks who are doing great work and are achieving excellent results in these areas so that we know that performance is possible, especially using these types of systematic (improvement) (inaudible).

We know that it takes a lot of work to get to that level and there are issues around culture and leadership and – in terms of having those tools available. But that data is an incredibly important part of that and is often underused.

And there's many reasons why that's the case, if we go to the next slide. A number of technical reasons ranging from interoperability to linking different data sources, I don't think that will be a surprise on this call. And those definitely need to be addressed.

But if we move to the next slide actually, we heard a bigger theme more than just the availability of data, was the ability to use it. And that's not to say that participants and the folks we talked with, (think) we have the right data, in fact we – many folks, (think) we don't and there's areas where we need to hear more from patient and get better information value and alike. But there's a real sort of missed opportunity in turning that data into meaningful information and really be able to use it for improvement.

So the work has suggested a couple of broad strategies. I've listed three here on this slide and there's more in the (coming) white paper. And we'd love to get feedback on this call, specifically about how we sort of sharpen those strategies and really think about how to improve both the availability and the use of data.

And so, let me stop there and turn this over to Arnie Milstein from Stanford University, who's going to provide some – next slide – some initial reflection on what he's done to identify high-performing practices and talk about the role that data has played in there and what those practices is going to be able to achieve. Arnie?

Arnold Milstein: Thank you, Rob. And Rob, I assume that my cover slide is now up on the screen for everybody to see?

Rob Saunders: That's right.

Arnold Milstein: OK. I use the symbolism of the cover slide because we're obviously at the point of history in this country in which the history was – as Chris put it less waste, greater reliability and more personalization is no longer purely a matter of professional aspiration but it's – it's become the basis of increasingly (rewards) and income flow in the American health care system courtesy of the number of policy changes occurring as recently in this year. That's the symbolism of the nectar and the hummingbird.

I've – as – Elliott really is, for me as a – and his predecessor, you know, Jack Wennberg have really – for me, kind of been the role model for understanding kind of what happens in big complex system – health care systems that have distinguished themselves on value, and then subsequently reinforced by wonderful research coming out of the Commonwealth Fund.

I've been curious especially about what happens at this so-called co-phase between the so-called patient facing critical (microsystems) and patients. And, really understanding how we might go about using available databases to discern so-called bright spots in the domains of waste, reliability and personalization.

And so that's what I would briefly talk about, It's really – I think sort of an introduction to what it was like today to sort of set out on a national effort to discover not so much within sophisticated large health care organizations that are known for distinction and value, but really an understanding what's happening in – on America's medical main street in small scale delivery systems, some of which benefit from being part of large health care organization, many of which do not.

Why don't we move to my slide number one? Which is entitled, "Three Needed Chance in Healthcare Value." There one thing to think about, you know, what's the purpose of accessing data and trying to transform that data into faster improvement. You know, I was (inaudible) the benefited from an education, (AIA), spending many years in supporting private sector efforts to

encourage health care systems to evolve more quickly in the value for some money that they provide.

And then having a nice – a very nice tutorial for six years in the MedPAC Commissioner looking at it through the lens of Congress in the Medicare program. And if I were to summarize these two – the private sector funders of health care in public sector, funders of health care, and by the way, my use of the business roundtable symbol here simply illustrative of private sector purchasers, it's by no means of statement of business roundtable policy positions.

But I think a fair summary of what sophisticated purchasers I would like the health care system would do – to do with respect to velocity of value improvement. (I think I've) summarized it in this slide.

Every year as you're probably aware of the NQF – I'm sorry, not NQF, HRQ, produces an annual quality report which you can then use to sort of roughly calibrate the percentage increase in the composite quality measures in the American health care system.

Historically, it's been running about – an average of about two percent (same) year. I think there's a sense given the well-documented size or the shortfall between what would constitute higher liability health care and what's the average today that someone has to read (obtained) two percentage point a year would be very much appreciated by the people who are funding health care.

Similarly, research done by a variety of organization – particularly a number of a reports issued by the institute of medicine over the last 15 years, suggests that there maybe anywhere between a 20 and a 40 percentage point opportunity to lower baseline health care spending per capital on a onetime basis without any loss in quality.

And then lastly, if you read what's congressional budget office produces and what American CEO's are saying about their ability to compete globally, I think there – it's clear that they are pretty bit close, roughly two percentage point average long-term real gap in growth between health care spending and GDP growth which (inaudible) health care spending as a percentage of GDP

and putting as much pressure as we are inadvertently doing today on funding K to 12 education basic research, and the global competitiveness as American work forces.

Let me move to the next slide, and simply make the point that – what's interesting about bright spots research that is finding health care delivery systems that are, do appear to be providing better quality and burning less health insurance (fuel) per person for year in the process of doing so. Is that, almost anytime you see your profile done, irrespective or whether the level aggregation or large health care systems were in this slide, which shows the risk bearing a larger – typically a larger physician groups is California that serve California's commercial HMO industry.

One has to see a so-called "Shotgun Distribution" like this. The way that's quickly (arises), this is very typical of health such a comparison of value using available data are done. Of course this was – what the physicians thought was a reasonable representation of their quality. And then the vertical axis and the horizontal axis is basically how much health insurance fuel for the risk adjusted patients is burned for patient per year for California commercial insured HMO patients.

And, as many have pointed out, especially prominent, each year a new hospital has 15 years and much of (it) is writing. Their remains a very substantial opportunity if we could replicate the high value produced by those – in this case (IPAs) and (salary) position groups that are generating much higher quality storage and burning less health insurance fuel. We could go a long way toward achieving what our private and public funders of health care aspire on our behalf for us to do.

And that was the essence of a piece of research I was able to do recently. But, with funding and wonderful colloquial support from the Peterson Center on Healthcare. We then – we try to focused just specifically on small clinical microsystems. Many of which were not supported by a large sophisticated distinguished – the health care organizations that were unique in their overall value.

And we tempted both – initially for primary care which results (inaudible) which I'll briefly share with you, and then now for eight different medical – medical sub-specialties.

We attempted to discerned, you know, were there any – what was going on in this – in this northwesterly distribution of (that) nationally, among those primary care practices. (I'm making) example, I'll show you that we're distinguished in a high scores on a composite of (key measures), particularly those that could be computed with the health insurance claims states which is one has to worked with if you want to do national work these days.

And then in this case, annual average risk adjusted per capital spending for commercially insured patients being served by these practices.

Just – I think purely as an illustration of how useful this can be in generating hints for what quality improvers might be – might do. In the next slide I just very – at a very high level kind of summarize what it was that when we set astute conditions on site, to ascertain what was happened indifferently in the bright spot.

What were the three domains in which the bright spots were different than a sample of practices we looked at that were deliberately drawn from the middle of the distribution. They are really three domains in which they differ. The first was (hard) which I think the engineers would – I'm not sure how the engineers would characterize it but it really had to do with the nature of the personal relationship between the people working in the practice and their patients. And perhaps this is probably on a domain that tends to be, you know, underdeveloped in the systems engineering literature.

It's perhaps because relative to manufacturing healthcare is so much more than intimate service than is producing, you know, goods on a production or even to an immediate degree providing services in a retail store.

I won't go into the details. The second domain we've had which I think the systems engineers would recognize that. That is primarily consisted of unique nature of certain processes that were happening among the bright spot, again

on this call I won't go into detail. Perhaps in the Q&A we can discuss that. But it's not the central purpose of this call.

And then we also – (in the half) is what I think the (testing tenures) refer to, the ergonomics, what was being done by these practitioners to make it easier to do the critical things that were needed to generate more health with less – overall health insurance (fuel) per person per year.

These practices were associated as a group with substantially higher quality (peer) scores, specifically 14 percent. And on the annual per capital spending basis, order magnitude about 20 percent less health insurance fuel burned, a long way toward the closing gap between where we are today and what those who fund health care would aspire on our behalf.

But one of the points here is that, the kind of – when you look at this kind of bright spot research. But really, you can think of it as sort of (inaudible) as (proof) positive or what one should do to improve but rather as a rich source of hypothesis generation. And now in partnership with the Peterson Center on Healthcare, we're moving on to a validation and replication phase so we can discern which of these features represent correlation and which represent causal features that is – features that if replicated would actually generate more health with less money.

I'll close with a couple of slides, the first is simply, you know, a lot of us think, you know, take a certain amount of satisfaction that federal spending for health care has grown a lot less quickly over – since the economic meltdown as has private specters spending. But (unless) we take too much satisfaction in the current equilibrium, I will tell you that that – whatever efficiencies that we are generating, they are still not enough particularly if one is an American worker, perhaps supporting a family and in the lower half of the income distribution.

This slide from the (culture family fund), I think tells a story that I need not elaborate on, whatever progress – whatever improvement or value we're making, it is not fast enough to spare pain among American working families.

Let me move to the last slide and say in closing – obviously, you know, value ranking of critical Microsystems is one of the things that could be used to improve performance. And what we're trying to show is that it is feasible, but having been through this process I will tell you that it is not easily done and the number of (nothing logical) comprises when it's forced to make. Given the limitations of available data is painful, you know, to measurement, scientist and people who would like – who believe this work is important enough such that the inequality and depth and availability of the data.

It is – I mean to say, it is a far cry, we're not going into detail between what it ought to be given the natural importance of improving value and health care and what it is today. There's just a big gap and perhaps during the Q&A I can elaborate on the many things that should be done to make this database much better, much faster and cheaper for this kind of bright spot research to be done and used in the way that we hope it will. Our research will be used.

And the last point is simply maybe an echo of the slide I showed a second ago which is how quickly we move on improving the database and our ability to transform the data into useful information and then move forward to improve value is not a theoretical issue, it's not a policy issue, it is not ethical issue. Because it is really it does –as many have point it out, this is – this affects how many teachers (get – let go over year). It also affects as (Peter) articulately pointed in his foreign affairs article. It also affects the funds available for our country to play its role in stabilizing our global relations.

So with that – with that I'll stop. And Rob you want to turn it over to Elliott or (inaudible) go for it right now?

Rob Saunders: Well actually – thanks Arnie and, we'll turn things over to you Elliott so – to give your thoughts as well.

Elliott Fisher: Sure. Well, can you hear me, OK? Is my mike on there?

Rob Saunders: You are and we have pulled up your slides as we speak.

Elliott Fisher: Wonderful.

Rob Saunders: Yes.

Elliott Fisher: So first, thank you Arnie, it's great to be here with you again. I think the example you've provided of, you know, the opportunities for improvement in primary care and what one can learn from getting access to quickly get access to better information about what's working and how well in real systems of care is really important.

So I'm going to take as a given for my comments that we will do everything we can to make the data that we're currently producing about quality like claim space measures, you know, the (key measures) and good data on cost as accessible and available to people like you as we can.

What I wanted to try – to try to build on your comments was to say, I think there are a few things we're missing. Now, that we also ought to be thinking about because we're – I worry that a lot of the things that are really going to be bringing value in the future, we are not able to detect the systems that are able to deliver it.

So, you know, fist slide has, you know, this – how are we going to accelerate transformation obviously, better information on value could help transform care whether it's your episodes as a clinical microsystem level as Arnie said or for, you know, annual cost as his slide showed for primary care practices or the medical groups in California.

The issues that we are highlighted in the white paper are critical, let's figure out how to get better data from your EHRs to add to the current data systems. And let's make public and private claims data more available. I should note there that since the – our meeting in Washington where the white paper – which lead to the white paper Medicare, has made substantial gains. They are now releasing nearly, you know, much more realtime Medicare claims data to investigators in addition to health systems.

So, it was available to pioneers and others through members of the – who were in the ACL programs but now it's going to be made available to researchers on a quarterly basis, which will give us a three to six months (lag) which is much better than what we've had in the past.

But I think, you know, I think the current measures are still inadequate for the long haul. We need data from private payers, there maybe some progress there but I think it's still slow. And as we saw – as we've experienced recently in Vermont we have one of our health insurers refusing to provide its claims data to the state all payer claims databases which is a problem.

And the quality measures remain limited, largely focused on technical quality. What I worry and what I want us to try to at least think about today is that the measures that matter to patients and consumers are still largely unavailable. We really want to know the places that are doing a great job of improving people's function when they have joint replacement.

Not operating on people who are so well that they don't need a joint replacement. We really want to understand, you know, Arnie's, you know, left hand symbol, this heart notion of what is a place that is graded making sure it aligns with patients goals, where patients trust their clinicians, where they have a wonderful experience in terms of 24/7 access.

We can learn that when we go to site visits but we can yet get that easily. And then of course we want to know the cost overall for the episodes and for per capital cost.

Next slide Rob or whoever is helping us with this. So, what might we do in terms of measurement? You know, the NQF has, you know, for the last six years has been pushing us to measure across episodes of care and there's a lots of progress at developing episodes but we need to be able to linking or to take – to measure additional things at the beginning and end of those episodes.

So I think there are few ways of thinking about accelerating the development of this kind of capacity to measure better. I think we will need places to identify –clinical test beds if you will, for new measures. The places that are going to be willing to say, we really want to understand all of these dimensions of patient care. And we will work to test them and get them into – make them easily integrated into clinical practice with various technology platforms and therefore make it available eventually for the kinds of research that R&D has been going.

We will also need to work with measure developers to refine and developed the needed measure. These are just the few examples, and many will be familiar with the measure of the promise initiative from NIH which can – which is has computer adopted technology, which can take long form surveys and reduce them to the three items that capture given domain quite quickly with, you know, by asking just the right questions.

We need to know from the HCAHPS initiative, what are the measures that we should really be asking, the really valuable ones. And I think we need much better measures of whether health systems are able to pay attention to patient's goals, and to collaborate measure that's been developed by some colleagues.

Now here at Dartmouth who were in Wales, you know, is a simple measures or what's – the three questions that you're going to ask any patient, you know, how much attention – on a scale of 1 to 10, how much attention was paid, to what mattered to you today? How much effort was made to understand what matters to you? How much effort was made to help you understand your health circumstances and how much effort was made to developed a care plan align with your goals?

And then we'll need to developed technologies that make this information accessible to providers so that it's useful to them, we'll never use any of this information if it's not used at the point of care. There's early evidence for places that are doing this, that that is what makes the data used. And it's helpful to both patients and providers when it can help them manage their care.

So that's the information about, what's happening to patients overtime in different context, quality, cost, experience.

Let's go the next slide because I worry that for the subsequent work, to understand how we can – how we're going to this at scale across multiple systems, is that we need to understand attributes of systems. We need to understand context as well.

So, (Dam Shrodor) and others who are in the field of implementation science, have helped us understand that, there are attributes of – there are a number of

innovations that are happening. But whether they will be adopted and whether they will have impact on actual performance depends upon at least three other things. The external environment, that's the – what are the policies, market structures, incentives, and if there are social networks within which people are trying to implement that new innovation.

What are the characteristics of the organizations? So we'll need to know something about the practices something about the – or larger organizations within which those practices are embedded. And in something about how they actually go forward to implement stuff and who is doing it and who's leading it.

So this is a conceptual overview from that earlier work and implementation science. So the gaps size, I think we'll need to pay attention to make current data as useful as possible, it's to understand context. Even to make – to get us to where we really need to be, we should be thinking not only about what we can do with current data but how we can make that data better.

So that was really, what I thought I'd share, I think this is an incredibly important moment, I've never seen a period in American health care where things are changing as fast as they are right now. But we are failing to learn from the (natural) experiments that are going on, I fear. And so, thinking about how we put these data system into place. So, you know, we can do exactly what Arnie did, is identify those great places and figure out how to help all of the others become like them, is (work) that I think will give us the chance of keeping system our children can afford.

And that last graph of Arnie's, how much faster cost are going up than wages should be a worry to us all. So, great to be with you, thanks for, you know, be willing to listen to a few comments from a pointy-headed academic.

Rob Saunders: Thank you Elliott. And, so now if you would like to make comment or (get into) the discussion, what folks needs to do is press star, one, and that will open your line. I just want to put that, the normal disclaimer here that if you got your speakers on and you're in a noisy place, we ask that you turn down your (phone) speakers or put your phone on mute when you're not talking just

so to minimize background noise. And it's going to take us a few seconds to open up the line. These folks are pressing star, one and the operator – (folks) over.

In the mean time, I think we have question here from (Helen Burstin) and just want to turn the call to her.

(Helen Burstin): Great, thanks Rob. So this is (Helen), I happen to be in the room so I have the advantage of not having to queue up.

So thank you so much Elliott and Arnie for just a great session. I want to followup on a really provocative comment Arnie made earlier on in the discussion which I just twitted, which was really thinking through this issue of what compromises we may need to make in terms of method, and (obtain) may cause measurement scientist like me and others?

It would just be really, really helpful to get a sense from both of you about what's – what's the path forward, what's that sweet spot on getting to value where you maybe able to at least have some level of comfort with the methods and the fairness, but getting to what you think is most important.

Arnold Milstein: Sure, maybe – Helen, this is Arnie Milstein. I'll take that quickly first. It's actually a really important and not easy to answer – national strategic question as to, if one were – how one might go about prioritizing the improvements in data preps and quality that might lead to the fastest rate of improvement. It's really a nontrivial question if you think about, you know, what, (what you'd have to) sell for in order to (answer it).

But I think, what's nice is that we a president for it. And I'd like to, you know, site the wonderful piece of work done by – funded by AHRQ and done I believe with (Michael Pine) about three years ago. Maybe actually – I'm dating – it's probably eight years ago. And, it was – I think lead by (Anne Alex Halter). And, she was – she begun to ask the question with respect to, you know, hospital data (fund) on quality.

What is the – what is the smallest increment in data, in a (breath) of data that would allow – the biggest ability in our ability to risk adjust. I think she was

after, you know, better risk adjusting hospital mortal rates or complication rates, obviously are really important measurement question.

And they went about a very systematic testing protocol, sort of consider all of the types of data that currently unavailable in electronic American database. And then evaluating how much leverage those different sources of data provided on improving one's ability to come up with an accurate – (really a) predicted mortality rate which is essential to calculating an O/E ratio.

And out of that came some, you know, very useful (G2) or (recognizant) information, essentially what – I'm paraphrasing this right and maybe it ends on the line, she can correct me. But I think, what the research basically showed is that if you – of all the different, you know, types of incremental data that might be useful. The greatest leverage in better – in enabling a more accurate calculation of O/E with respect to hospital mortality, lay in being able to capture (coronary) hospitalization, lab results and I believe it was the medication orders.

But that, that's an example of how one could take what is now, it seems like an untamable question. And then – and then using health services research to go about prioritizing in descending order, what the – you know, what incremental data elements and/or better quality control of existing data elements. What that would do for our ability to begin to fill out the measurement dashboard in the diverse ways that Elliott touched upon.

(Helen Burstin): Great, thank you.

Elliott Fisher: So, this is Elliott. I would add, I think – I agree with Arnie that we need much – we need thoughtful decisions about where are the places where we'll get the biggest gain as we go toward national performance measurement. Which will accelerate the kind – make the kinds of work that Arnie is trying to do and many others much easier.

I do think there's a second path which is getting better at testing things, and thinking about where are the, the natural laboratories that could run forward with measures that are promising and provide us evidence about how well

they work, how – what they need to be – how quickly they could be modified to make them even better.

So I think it's – I'd like us to see testing as an important investment that we make in addition to the, the subsequent stop which should be, which one of these are the ones that we should immediately add to the national dashboard.

Rob Saunders: This is Rob. We've got a question on the chat. Where – from (John Wilson) who notes that, the majority health care cost are human capital, and one of the big question here is really trying to understand cost to the provider level and also getting metrics that look at cost and performance that, you know, at that type of level, and really been trying to design data systems that can link provider and patience and also provide that type of performance metric information.

And for Arnie and Elliott and for other, I just want to see if anyone has comments on what's holding us back in trying to get that level of information at the provider level. Perhaps Arnie your work in trying to (thought) these high-performing practices, you might have some thoughts about, what are the difficulties and really identifying that type of data?

Arnold Milstein: Sure what is – the two questions here. One of the questions, so what is the nature of the incremental data that would generate the flexibility and our ability to ascertain value. Including not just about the practice but also some of the perpetual variables that Elliott touched upon. And I've – (and it may realize), sort of suggested how one might (inaudible) prioritizing, what would make the difference?

In terms of how one begins to make that data move, that's a – really a political question. I mean, for those of us who to pushed hard to – and there maybe even (faces in fact) on this call who does so, to make this data and patient be identified format, much more universally available. But there is a primarily a, you know, political and it – I think, you know, largely originates with, you know, sensitivity on the part of those things (judged) about the who would – who could be judged and compared using this data, about – (simply) if it originates in (inaudible) clinicians to collect that and share.

Understandably, that are aware as anybody, you know, who had their performance, you know, pulled into a greater degree of a public observation. You know, so that's historically been a major source of (resistance). Sometimes it's not (trimmed) as, you know, anxiety about being scared but more in terms of the incremental measurement burden. We – that incremental measurement burden resistant is something that will probably continue until such time as the America health industry, you know, begins to tame these new electronic health record platforms that they are holding on average about three years, four years into implementing.

And we know that based on other industries that have inserted electronic platforms underneath their (prophesies), it's usually – and unfortunately for the health care industry, about a 10-years journey before sufficient degree of mastery is obtained such that that those new electronic platforms ge – turns into the kind of data liquidity and support for improvement efforts that – this is the topic of this call.

Rob Saunders: Great. And I see that Paul Tang has a joined the open line. Paul, do you have a question or a comment today?

Paul Tang: Sure. Thanks for the discussion, really appreciate it. We learned from Arnie that having (inaudible) is a very important example for us all, to be quick and nimble. And how it – what we were trying to accomplish is possible so that's the purpose I think, a bright spot. And Elliott talked to us about the measures that we really need, some of which are in promising (caps), but willing to make it useful it has to be put in the hands of those who can use it whether to provider or the individual.

And maybe that's where the challenge is, how do we make it useful? It's more than just – I think we focus a lot on the data but how do we make the data actionable at the point of need by either people helping like providers or people needing to change like individuals.

So what needs to be done? Who needs to do it? And how do we – and sent those who need to do it to get on with it?

Elliott Fisher: So this is Elliott. Paul, nice to hear your voice. You know, I'm impressed by the examples of clinical systems that are using patient reported measures to make – to guide treatment decisions by clinicians. So for example, Dartmouth-Hitchcock orthopedic clinic is still using functional status assessments prior to joint replacement. And now know from enough of their research that patients who were at the midpoint, who are – who have average functional status, physical function compared to the national means are not going to get a meaningful improvement from getting their joint replaced.

Many of them are still referred for joint replacement because they have (need thing), but they're not going to benefit from it. Those clinicians and the patients who are working with them find that having that data when they see the patient more useful than any of the X-rays or lab test. This person has great functional status already, I'm not going to make them any better, I better help them understand that this is not a procedure that they want to have. That would be an example of making the information useful.

Paul Tang: That's a fabulous example. How do we put in the hands of either orthopedic surgeons or patients who are contemplating getting their need?

Elliott Fisher: Even better to do it to the primary care physicians before they get to the orthopedic surgeons...

Paul Tang: (Got it).

Elliott Fisher: ... (inaudible) maybe some, might operate on people who feel just fine.

Arnold Milstein: Yes. So Paul this is Arnie, you know, I (just) – see this in kind of two different contexts, one is this, you know, getting information to those you are seeking to improve. In our, you know, in a psychological moment where they're ready to modify how they deliver care, you know, I'll call it their usual methods or whatever is there practice (patterns).

And then obviously, you know, as we begin to move into more sophisticated – opportunities to do more sophisticated things that (elect) realtime electronic health records and sensor data, you know, promise that raises an opportunity, a second type of opportunity which is literally on a realtime – on a realtime

basis, the ability to tap either patient on the shoulders or (as health cared driver) on his shoulders or clinicians on the shoulders. And saying to them, you're in a circumstance right now where theirs a major opportunity to do something different that could either eliminate or reduce waste, improve personalization and/or improve reliability.

Those are two different, you know, contexts that I think that the vision that Chris described at the beginning (inaudible) I think really (encompass both), I think those are two very distinct uses for this information. One, you know, realtime clinical basis, the other for those who are in a, you know, as part of their improvement aspirations.

Paul Tang: Thank you.

Rob Saunders: And we have a two people in line, the next one is Bonnie Westra and I know (Bonnie) you've been doing some interesting work in Minnesota about looking at big data especially American context, and look to have your thoughts and hear what you have to share.

Bonnie Westra: Great. Thank you so much. Yes, so the University of Minnesota had – three years ago with an invitation, two representatives from (Practice) Academia Leadership Interprofessional (inaudible) Government Organizations to try to look at how to expand on complicated model that can support quality and bid data research. We have 10 project teams that resulted from that and – so there's just a couple of techniques I'd like to share with you.

One is today, (that we) submitted a minimum assessment data set to (link four codes). There are six organizations that work together including vendors in clinical settings that identify what are the minimum assessment element for certain illogical categories (in one of the value steps). So that we then can make those available for consistent coding, a lot of that data represents interprofessional as well as nursing. So it's not just about nurses although they're certainly important in my book. But it's nearly critical that if we're going to have good data quality we must have a data that really represents I think in a professional practice. And I think a good example today really was functional status.

And in fact functional status is often times need a difference in terms of physical therapist, occupational therapist and nurses. So I think it's really critical that we look at interprofessional data and the (expands) are common data models that represents the (flow) (scope) data for being able to demonstrate quality.

The second point I wanted to make is, as we look at the kind of data that we need, we need both structure process and outcome data. And so the American Nurses Association actually 10 nurse sensitive quality measures recognized by the National Quality Forum and the Joint Commission many years ago. And what we know from many, many, many studies is that, when we look at staffing data whether it's turnover, education, satisfaction that those kind of staffing data really make a difference in patient outcomes. And so we need to look at the integration of data from multiple sources and I would suggest that we need to really be pushing for data as close to realtime as possible at a clinical data repository, it's not just at the EHR, because we don't want to start pulling all kinds of staff in the EHR staff to do quality measures.

So, and then the third point I wanted to make is that, when you look at Michael McCagh's work with PPSAs and some of the work going on with (McCagh) they really look a lot at data quality model and there's some newer cutting edge staff that's coming out now about how to measure the quality of the data that we use for quality matrix.

And so, I think we really need to be paying attention to what's happening with our (CFAs) and some of the data quality work (in the Cory) grants so that we can learn from that and even consider having reports on data quality.

So, those are my three points. Thank you very much.

Rob Saunders: Thank you. And Arnie, Elliott, or Chris, they may have comments or reflections?

Christine Cassel: I have a comment. And it really built on the last speaker's reflections about the importance of the multiple disciplines and it sort of reflects on Arnie's point about where the resistance is to the individual provider and particularly individual physician level reporting.

We're – we at NQF are now looking at a whole range of measurements, science questions, and the issue always comes up about, in this particular performance metric really reflect just that one doctor, or just that one hospital, or is it abroad or accountability framework.

And I think we all, you know, working now. The whole theory of systems is to get people to understand that they're working in teams, they're working in systems and yet, so much above measurement it's still framed on the individual provider.

So, I think, of course, one of the reasons for that is because we – Medicare and private insurance still with some exception pays the individual physician rather than the team or under separately or pharmacist or other member of the team.

So, I'm wondering Arnie, I'm thinking about your wonderful image of the heart, you know, and how clinicians work together and whether their whole premise of performance measurement might work better if we were to recognize a different level or maybe even multiple levels of measurements.

And – so that's a question for Arnie and Elliot. But then second that I would just love ask all of (staff) to think about and our – people attending is that, when PCAST does a report, we always are being asked, what is the lever that could actually make this happen? So we've heard a lot of ideas particularly from Arnie about certain acceleration of payment and different approaches.

We've heard from Elliott about the kinds of different kinds of measures that would create more useful information for patients.

So, the question particularly for us as we think about how to follow up on this work is, are there things that the federal that we can try to recommend to the federal government, things that PMS should be doing differently for example. Are there things that private sector entities should be doing differently? Is there something that NQF could do differently or the (the core), et cetera.

I mean, it would be interesting to put together a venue of potential leverage points to create some of these changes.

Arnold Milstein: Sure, Chris. Well, I'll take a stab at it and then welcome Elliott as well but, you know, I, you know, again, this is where I, you know, I would express my opinion based on the work that I've done and I suspect others who have done similar (breaks) research and thought about strategic increment of the university available set of digitized measures. You know, what might be prioritized.

But I, you know, I would say, you know, referable to your question about, you know, team performance and taking into account the experience of others on the health care team. I think, one might – it could make a very good case for the – almost a universal availability of some measure of the degree to which people on occasion facing health care team of all levels of your training including the, you know, the perception staff and the primary your doctor's office.

The degree to which they feel respected and again, that they feel engaged, you know, in performance improvement work. I mean that I think, you know, one of the – I think features from other industry that (one) trust about organizations that are improving the velocity which they deliver higher value to their customers. Is that the organizational, you know, mindset or psychology is one in which everybody on the team feels that they really have two jobs to do.

One is, whatever is their assigned job, to get receptionist or sophisticated clinician or anything in between. But secondly is the job of – serving as a respected member of a team whose job it is to reflect on how share is currently being provided and to speculate and to participate in a process for hypothesizing and testing ways of doing it even better more reliably and less wastefully.

That that is – I think if we – you know, again we take a more – a much more broad based process to come up with a prioritized list of most important areas to focus. I think – if I were – impart of social network, I would put a premium

on a way of entertaining how people on a given – patient (facing) health care team, the degree to which they feel respected and engaged in the process of improving the value of being delivered by their service unit.

Elliott Fisher: Yes let me – this is Elliot. I'll add a couple of things. First, I think the question of care integration – because that's what patients experience except unless it's a single visit, so it's care overtime. I think more attention to measurement across episodes – not necessarily pain for episodes, I think that's a (fraught) exercise.

But being able to measure the value produced by given episode of care, will by – almost by definition forced the members of the people who are participating in it whether it's an acute hospital, a nursing home, the rehab folks, to work together to provide better care.

If you also measured a various elements of performance that would capture functional recovery, you'd have a much better idea that the nurses and the physical therapist were all in the same page in helping people get back to full function as quickly as possible.

There is – I think there's another, you know, might we ask patients about their experience of the team, and I think it's – I think it maybe possible, and again colleagues are trying to work on it, we're asking and still very developmental but did all the people who – all members of the team, that the patients got care from have, you know, appeared to have a common knowledge based about the patient's problems.

Was there any conflict among team members? And so far the early preliminary work looks like patients are able to report quite accurately and distinguished high performing teams from lousy ones.

So they're maybe ways of getting at your interest Arnie with measures from patients, it might be more efficient.

Rob Saunders: And I see that we have (Joe Selby) on the line interesting asking a question, (Joe) are you still on?

(Joe Selby): I am. Are you able to hear me?

Rob Saunders: We are thank you.

(Joe Selby): Good. Oh and this was my change to ask my question is that right?

Rob Saunders: That's right.

(Joe Selby): (Inaudible), well I – somebody mentioned the PCORnet, PCORI's exercise in building data. Primarily for – the third leg I think, if one leg is clinical performance and one – a clinical care delivery and the second is performance measurement and improvement and the third is research. And so the PCORnet team at the, approach to electronic health record data and other data, you know, from – primarily from the effort to spur a much larger volume and a much more affordable stream of embedded, compared (to) effectiveness research.

But, we've understood that, you know, that's not going to happen in delivery systems unless the same effort can support the other two legs, care delivery and particularly performance measurement. So we're investing a lot of PCORI resources in working with the delivery systems to appreciate the utility of data for both developing new measures and for – particularly for improving performance.

But one of the things that we realize, and this is in the spirit of acknowledge – recognizing all the data sources that are needed. What we did in PCORnet I think, and we're now kind of backtracking (someone is) we were so enamored of the electronic health record and what it offered that we didn't on day one, go and grab that old familiar claims data that, you know, we all started working within performance improvement as well as research. And it's just essential that you know, it's now apparent to us that it's essential to have the claims data from the insurers, public and private, as well as the electronic health record data.

The electronic health record data has immense holes in it, mostly that have to do with what happened to the patient before they appeared for care, who they really were in terms of comorbidities. And what happens to them the day they

leave the hospital and thereafter because they often don't come back under the oversight of the electronic health record. So whatever you're trying to measure, outcomes for the sake of measuring performance or whether you're trying to measure outcomes for the sake of comparing two treatments, those claims data are crucially important, along with certainly the capacity to contact patients and get their reports.

But the beauty of it is, is that – and this is what we're sort of running into, to get the claims data means that not only do you have to do work with the delivery systems and the clinicians, but you've got to get the payers to exact same table. And that I think has a lot of interest to this call today, the notion that, if we take one step closer to integration and include payers along with delivery systems in the discussions about how they're sort of, you know, some of the data is owned by one – some of the necessary data is owned by one partner and some by the other.

That creates kinds of dialogues that could lead the both more meaningful agreed upon measurements and also better data for research. So, I just wanted to put in a vote, I haven't heard word payer mentioned since I got on the call and I wanted to get the old claims data back on the table.

Arnold Milstein: Well, (Joe), it's Arnie, you know, I've, you know, I think so many of it – including Elliott have been working, you know, heavily – typically only with claims data or...

(Joe Selby): Right.

Arnold Milstein: ... trying to – especially measure total cost of care, and sort of (inaudible) (point). But I think you're right. Is one think about what, you know, one has to do today, what we have to do doing our research to be able to not only get a hold of a substantial amount of pair, claims data. But also get it in a form in which one has the – identifying information for the provider so (one) physician to know, you know, where the (bright spots) really are. That turns out today to be nearly impossible.

We were able to, you know, with a tremendous amount of to find a source of commercial (inaudible) national, it was national and was – would allow us to

do that. But only for research purposes and have simply been, in performance improver, you know, who is seeking to identify 10 places around the country that outperforming on values so that I might understand how they were doing, what they were doing, that simply would not have been possible from any national data source with enough size of database that one could reasonably – have reasonable confidence in the ranking system.

(Joe Selby): Right. And I think my message is that, by joining the two activities, the performance measurement and the research, one can take some beginning steps to get these players to the same table, and that I think is the really important part. As long as one is trying to simply to get the other entities data so that you can do something in one sector, there's all manner of barriers that come up including the barrier of linkage.

If one has a joint willingness to use the data for the same purposes, then problems like HIPAA and aspects of linkage become soluble problems. That's our – that's our assessment at PCORnet, but, you know, it's certainly not ready for national prime time, no doubt about that.

Elliott Fisher: So (Joe), this is Elliott. I think we all sort of – we're assuming and emphasize the importance of getting to comprehensive claims data that you're trying to help us get to. So, more power to you keep going and I think the power – the power of the people on this call and of the first meeting that was hosted in Washington by NQF, is there was agreement that moving forward on making the data more available for this purposes is, is – is almost – was at the top of everybody's list.

Rob Saunders: And we have a related question from (Erik Snider) on the chat who notes on, bringing up this question of claim data that we've got (disparate) (claims) sources now, you got Medicare, you have Medicaid, you have commercial ensures and bright spot found in one particular data source may not hold if you look at some of these performance on, in different data source, for Medicare patients, it may not be the same as performance on commercial payers especially around the questions of value.

And sort of poses a question to the group of how close we are to integrate that data across those different claimed data sources. And I think this brings back the point that – that (stuff) was brought up about, what policy levers can then we use to help get us to seeing that type of linkages.

I don't know – Elliott if you wanted to touch on that. You mentioned some work on All-Payers Claims Databases earlier.

Elliott Fisher: Well, you know, this is Elliott again. I think – (Erik) hi, I agree, we need to work harder to get access to that data. They're, you know, there are several paths going forward, the Arnold Foundation is working with State All-Payer Claims Database to try to accelerate their spread and successful – continuous successful spread. And that strategy should certainly be pursued.

The Health Care Cost Institute would love to have – be the provider of the – the data repository and to make it easy for all of us to get everybody's claims data, but not everybody yet is willing to contribute their data to them and they have historically not allowed provider identification which, you know, which makes it impossible to do the kind of work that Arnie wanted to do. I understand that there – I think most of the barriers to getting good at this are as I think (Chris Castle) said at the outset, political.

And so that the challenge really is probably about getting the stakeholders who really have – who have substantial influence and – I don't know Arnie what you think, but employers would certainly be in there. To figure out how to allow – I think enough of the value of those commercial claims data to remain with the plans that find, you know, or hoping to make billions of dollars off compared with effectiveness research and their, you know, to sell the data.

But (get a come) and let them keep that value, but as (Joe) is suggesting, less creative value set for certain purposes of improvement that combines key data elements from clinical records, from patient ported measures, from claims data and let's get the rest of us able to improve health care.

Arnold Milstein: Yes, Elliott this is Arnie. I agree with that and I think if I, you know, if I sort of reflect on some of course trades that were necessary to produce the

California results that I showed you a few minutes ago. I think in many cases, the nature that compromised us so far are that – what the owners of the data, they payers are willing to do under – sometimes under a fair amount of pressure is to – I'm getting a little feedback, maybe if somebody could mute their line.

But, the – which is to produce performance measures rather than supply the original data, that seems to be the sweet spot that enables payers to collaborate.

Elliott Fisher: It's worth mentioning the (signal) network and the distributed data models that are being used by FDA now as a model of distributed – such distributed data approaches.

Rob Saunders: And we have one last question from (inaudible) who asked – one who asked about precision medicine. And specifically on this call we've been talking a lot about identifying some set of data elements and trying to identify data theses but for precision medicine opens a possibility that different treatments will be reflected for different patients depending there individual biological characteristics alike, and that might change the paradigm a little bit.

(Helen) I wonder if you have thoughts about how precision medicine might fit into this data question and then in the measurement enterprise at large?

(Helen Burstin): Yes, I'm happy to Rob, this is (Helen). So just – we're talking a little about it reading from the chat, and so much of what we talked about is at a national level, on a very high level looking at where we get the data sets to answer these important big national questions.

And, I guess the question I would pose to Elliott or Arnie is in some way how does that accommodate a more customized individual patient approach, which is what is precision medicine is all about.

Christine Cassel: Can I – (Helen) can I add to that since – interestingly there's an NIH webinar right now on precision medicine that's competing with us. So, this seems very appropriate, because I think a lot of a people think that some of these big data approach, some of the standardization of metrics that – all the benchmarking that Arnie and Elliott are talking about requires – they think that that

depersonalizes medicine and it doesn't allow for individual variation. Whereas – I think what you see in other industries where data is really realtime and accurate and ubiquitous, is that you can use it to set the stage for what the standards ought to be.

And then you have the ability to look at the characteristic of an individual patient, let's say genomically or – in another kind of genotypes that PCORnet might be able to list it, so that you would actually get better. If you understand the background better, you can understand the individual variation better would be – the reality we think about. But, I'd be very interested in what Elliott and Arnie would say to that.

Arnold Milstein: Sure, this is Arnie. Yes, so I think that – that what Chris articulated was that – better probably than I would have – would have done. But I think (inaudible) that's right. And fundamentally, if you think about the three domains that Chris said out at the beginning of the call which is greater reliability and greater personalization and less waste.

I think the greater the granularity of the data which is what a lot of these precision medicine initiatives are promising. You know – vastly expanding the range of data element on which one can go about making an assessment as to what a patient might best need.

Those would easily feed a, a systems approach to taking care of patients. I don't see personalization and systems solution in anyway as in conflict.

Elliott Fisher: This is Elliott. I would agree, in fact I think they're – the goal of – I've said – of an engineering approach should be to make sure that the patient's goals are well-clarified. And that the treatment options that are best – that might be plausibly suited to them are known, well-characterized in terms of the different outcomes. And then the choices presented to the patient about which – which set of complications and likely potential outcomes do they want to accept.

So I am completely in favor of the kind of personalization that we need. We should be doing a much better job of personalization in our current health care system and look at end-of-life care. And, better (biogenetic) information will

help us be better at customizing the treatments so that we're less likely to get toxic medicines and more like get helpful ones.

Rob Saunders: Great. Well, this is – I think we've gone through all of the questions here. And so, let's shift to the next step. Before we do so, I want to again, thank Elliott and, and Arnie for talking with us today and also with everyone else who stayed on. We had a really good group of folks who dialed in and I think we've had a good discussion.

And I want to turn to Megan Anderson to tell us what the next steps are in terms of this project and what we're going to do with what we heard today.

Megan Anderson: Thanks Rob. This is Megan Duevel Anderson. I'm a project manager at NQF.

We do want to thank you all for your comments and we will be incorporating these comments and questions into the white paper and I'm refining the recommendation as well as from other public comments that we've heard. The final white paper will be posted on the NQF Web site and (disseminated) broadly on July 31st. And we look forward to additional opportunity to explore implementation of these recommendations (with) you and your colleagues.

We also want to note that we'll post a recording of this sub-meeting on the NQF Web site within a few days. You can also sign up for project alert on that project page so that you can make sure you get that updated information.

Rob Saunders: Great. Thanks Megan and Chris, do you have any final remarks before we close out today?

Christine Cassel: Just to thank our guest speakers, Arnie and Elliott and all of the people who participated. And urge you to send us ideas you may have or (follow report) because this – this is intended to air some of the important research that's going on in this areas. But also to identify action function leverage points that we might either – to our multi-stakeholder networks be able to further or advocate for in many of the interactions that all of us (are) engaged in.

So, please do send additional ideas. I've gotten a couple of e-mails myself during this call.

Rob Saunders: Great. And finally, I just want to thank again, the Peterson Foundation and the Moore Foundation. We know they've been (only) join us at today's call but very appreciative for their, supporting this work. And with that, thanks everyone for joining us and we hope you all have a good July 4th week.

Operator: This concludes today's meeting. Thank you and you may now disconnect.

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