NATIONAL QUALITY FORUM

Moderator: Reva Winkler
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Operator: Welcome to the Adult Immunization Committee Meeting. Please note today's call is being recorded. Please standby.

Reva Winkler: Good morning everyone. I'm Reva Winkler from National Quality Forum. Thank you all for being here with us. I hope we can have wonderful two days talking about measurement in Adult Immunizations. We put together a group that comes from a wide variety of perspectives. We're looking for your varied input and thoughts. And we do thank you very much for joining us.

So, to get thing started, I would like to introduce our Co-Chair Dr. Moy. Our other Co-Chair seems – is having trouble getting here from Philadelphia apparently. So, when Amir gets here, I'll be happy to introduce him. But Ernie, I'll let you lead an introduction.

Ernest Moy: OK. So, I'm Ernest Moy and I'm with the Agency for Healthcare Research and Quality, I'm medical officer there in the Center for Quality Improvement and Patient Safety. And I am here because once upon a time I got to Shanghai to work in the HHS for Adult Immunization Task Force Measurement Working Group because of the work that we've done in Quality Measurement and that has ultimately lead us here to this wonderful group talking about this wonderful topic.

I think maybe I should let everyone else introduce themselves. Should we go around to my right – we're doing a counterclockwise.

Douglas Shenson: Sure. My name is Douglas Shenson. I'm with the Yale School of Medicine.

Megan Lindley: I'm Megan Lindley. I'm with the Centers for Disease Control and Prevention. I'm actually replacing Faruque Ahmed here if you're wondering why I'm here.

Wendy Prins: Good morning. I'm Wendy Prins. I'm with the National Quality Forum.

Sandra Sommer: Hi. I'm Sandy Sommer with the Virginia Department of Health.

Roger Baxter: Hi. Hi. I'm Roger Baxter and I'm with the Kaiser Permanente Vaccine Study Center which means I worked with (great) – big groups of people and do research on vaccine.

Litjen Tan: Hi. I'm LJ Tan. I am Chief Strategy Officer for the Immunization Action Coalition. I'm also a Co-Chair for the National Adult and Influenza Immunization Summit.

Samuel Stolpe: Hi. I'm Sam Stolpe with the Pharmacy Quality Alliance. We're measure developer on safe and appropriate medication use.

Joseph Hunter: Good morning. I'm Joseph Hunter. I'm with family physician in Memphis, Tennessee with Methodist LeBonheur Healthcare.

Laura Riley: Good morning. I'm Laura Riley. I'm a high risk obstetrician at MAT General Hospital and I represent ACOG many things mostly immunization-related.

Shary Jones: Hi. I'm Shary Jones from a National Vaccine Program Office. And I coordinate the HHS Adult Immunization Task Force. And I'm just sitting in for Dr. Jody Sachs.

Patricia Nuzzie: Good morning. My name is Patricia Nuzzie and I'm with the Immunization Partnership from Houston Texas.

Janet Jennings: Hello. I'm Janet Jennings from Blue Care Network Southfield of Michigan. And I'm epidemiologist for the manage care area for research and informatics.

Robert Hopkins: I'm Bob Hopkins from the University of Arkansas for Medical Sciences, Med-Peds physician and just overall an immunization advocate.

Cille Kennedy: I'm Cille Kennedy from the Office of the Assistant Secretary for Planning and Evaluation at HHS. And work on this contract overseeing the administrative managerial part of it.

Juliet Feldman: Good morning. My name is Juliet Feldman and I'm the project manager for this project here at NQF.

Caroline Johnson: Good morning. I'm Caroline Johnson. I am a Director of Disease Control for the Philadelphia Department of Public Health.

David Nace: Good morning. I'm David Nace. I'm a Geriatric Medicine physician with the University of Pittsburgh and also with the American Medical Director Association.

Amir Qaseem: Amir Qaseem, director of Clinical Policy at the American College of Physician.

Juliet Feldman: Operator can you announce if anyone is on the conference line, the committee line.

Operator: Yes. We have Jeff Duchin.

Juliet Feldman: Hi. Jeff would you like to introduce yourself?

Jeffrey Duchin: Sure. Thank you. Can you hear me?

Juliet Feldman: Yes.

Jeffrey Duchin: Great. This is Jeffrey Duchin. I am Communicable Disease Epidemiologist and I oversee the immunization program here at Public Health Seattle and King County. And I'm on the faculty of the Infectious Division at University of Washington.

I currently work on the ACIP where I chair the Zoster Workgroup and the General Recommendations Workgroup and previously have been a liaison to the ACIP for a number of years representing the National Association of City and County Health Official. And I'm currently the chair of the Public Health Committee for the Infectious Disease Society of America. And adult

immunization is one of our priority areas. So, sorry I can't be with you in person.

Juliet Feldman: And thank you for joining us, Jeff. And I also just want to let the committee know that Eddy Bresnitz from Merck Vaccine, he's also – he's streaming right now but he's also in the committee and he'll be providing his feedback electronically throughout the day. He also should be joining us but he hasn't announced himself yet.

All right, so thank you. I'll go into just the welcome and part – overview part of this morning. If I could just make a request because we have people joining us remotely, if you could please your microphones when you speak today that would be very much appreciated.

Reva Winkler: And just to be sure everyone is aware this is a public forum and so anybody could be calling and listening in. We're also recording so that we'll have a permanent record of the conversation. So, just be aware.

Juliet Feldman: OK. Good morning and thank you all so much for being here and traveling to be here. We're so glad you're here and we look forward to a fun-filled interesting two days.

So, my portion of the meeting this morning is just to provide a general overview and kind of reminder of where this project stand from and what are objective – what our objectives are for today.

So briefly, I feel like we've kind of rehearsed this several times over the last several months but – this is an HHS-funded project. It's one of five projects that NQF is currently working to prioritize measurement gaps and make recommendations to HHS on where they should priorities their measurement efforts.

So, on the slide here, this are the five topic areas that NQF is working on and adult immunization is one of them. For four of the projects, the immunizations' meeting is the first of four of this month. So if you're interested in participating in – or listening into the other meetings, the next one is care coordination which will be on this Thursday and Friday.

And I'll just mention that Wendy Prins, she is overseeing this whole – we call it the Task 5 Project. So, if you have any questions related to overarching project, she's your girl.

So the Adult Immunization Project, what we have been tasked with is to provide multi-stakeholder guidance on the highest priorities for measurement to optimize vaccination rates outcomes across the adult populations.

So, this project, we are at the point where we are going to do the measure gap analyze and a prioritization but to date we have done a literature review and an environmental scan of measures and measure concepts related to adult immunizations. As you know, we developed a conceptual framework to help in the prioritization which we'll be a referencing during the meeting today.

So – and then the in-person meeting today and tomorrow is which one we do in the measure gap analysis and priority setting. And then based on what comes out of the meeting, we will be drafting a report of recommendations. That will be delivered to HHS in mid-August.

So, that's a brief overview of the project. Ernie or Cille, would you like to make any comments. I know Ernie you already spoke to kind of the origins of the project of (inaudible) if you have anymore comments about how the project will be informed within HHS and such?

Ernest Moy: Sure. I mean. I'm glad to restate some of it. This is a totally open conversation from our perspective. So, how this evolved was we were asked to try to make the measure, adult immunization for HHS, and we had a workgroup within HHS with all the different agencies, representatives as well as VA and DOD. And naturally, you know, being – I don't know, bureaucratically-minded, we thought the first thing we should do is try to assemble an inventory of all the different measures that we're currently using to track.

And when we hit roughly a hundred, we said, "OK. I think we have enough to work with and we had some very high level conclusions." So, some of our conclusions were, one, we have way too many flu measures, two, there are

very, very few non-flu and non-pneumococcal measures. We have process measures and we have very, very little (inaudible) process measures.

And we said, "OK. Well, can we think of what we ought to be – to do for that?" and we started to think about it and ultimately we said, "No. We can't. We need some experts help on this."

How can we improve measure of adult immunization for HHS? But then ultimately, I think it expands beyond that as well. And that's what we looked to as a group. It is totally open-ended and we are totally open to any comments or suggestion that you have about how we ought to be measuring adult immunization.

Juliet Feldman: Cille, do you have any comments?

Cille Kennedy: Well, I don't to be repetitive but if I happen to say something that either Ernest or Juliet already said please note, it must be so important that it will be on the final exam.

In any rate, what I want to do is first of all warmly welcome you on behalf of the office of the Assistance of Sectary for Planning and Evaluation. This is work is extremely important to us. And the charge is more or less to help us improve the quality of the healthcare of our nation.

So, I don't know if you were aware but there's actually a federal law that has asked us, tasked us as the department to have a contract which has been competitively awarded twice to the National Quality Forum. Now, within that contract, this particular project, that one in which you are providing your expertise is part of the contract's directive too and I'm going to quote there are a couple of dot, dot, dots in here but forget that.

OK. So the contract's directive is to review and synthesize evidence and convene key stakeholders to make recommendations on an integrated national strategy dot, dot, dot, and priorities for healthcare performance measurement. So, those are words that are in the contract that also sort of taken from the law if you will. So, it's really a high profile kind of undertaking. I don't want to make light of it, but I still want you to have fun the way Juliet says you can.

At any rate, so that the work that you've undertaken as key stakeholder is to provide recommendations for the gaps in adult immunization, but the gaps or the gaps in already endorsed NQF measures.

And then where – to tell us all to make – tell us where and make recommendations for where there are unavailable or in adequate measures.

Now, the choice of adult immunization is one of the five areas that you were told came from previous works that the National Quality Forum did with the – with HHS under a government thing in identifying measures and gaps. So we're building on a foundation of recent works.

So what you are is the external body, the key stakeholders and experts providing evidence to us, so that the government isn't talking to itself because we can get us embroiled and not be able to come to conclusion as any other body. So, kind of on that basis as external advisers to the government, I really wholeheartedly want to thank you for all the effort you have already and we'll be putting into this important topic.

Now I also just want to take a moment and to acknowledge the role of Dr. Jody Sachs as the government's subject lead on this particular project and I'm really regretting, and I know she does too, that she's not able to attend. But I also want to point out that it's her wisdom and her knowledge that have provided the breadth and the depths of the foundation, that we've been able to build upon and working together with NQF to facilitate this.

And I want to thank the staff of the National Quality Forum because it's their hard work, their responsiveness, the resources, the way they put things together and the insight that they draw and then come to back to us with really good questions that it helped to facilitate to make this even an exponentially better project so far. And I know into the future that that will be true.

So thank you very much.

Juliet Feldman: Thank you Cille and Ernie. Are there any questions from the committee about the project in general? All right. So, I just have a couple more slides.

This should look familiar. This is the draft conceptual framework that we developed and that you provided input on. And, as I said this tool we will be using throughout the day as a way to help us in the measure gap analysis. This is the second of three slides depicting the framework for the special populations and the healthcare personnel and the immunization information systems.

The draft environmental scan findings. So, as another piece of what we did prior to this meeting was the environmental scan of this existing performance measures. And we had identified that there were 225 measures, 79 measures to address influenza immunization, pneumococcal immunization is the second largest group with 60 measures. And the majority of measures were – for all vaccines are process measures. Only four of the 46 outcome measures are at the provider level. And 15 composite measures provide examples of how measures can be combined.

So this is kind of reinforces on why we are here and the recommendations that you're all be providing over the next two days.

And then lastly the third kind of piece of the puzzle of NQF for today on this project we did the conceptual model, the environmental scan, and then since our last webinar, we've spoken to 10 individuals, we call them Key Informant Interviews or Discussions. In which we spoke to different stakeholders in the field about where they would – what their recommendations are. And how adult immunization measures are being used and where they see the barriers and leverage points.

So I hope these key informant summaries were included in the meeting packet. So I hope you were able to review those. And I hope they'll be able to provide some considerations and insight as we move forward in the deliberations.

And, just so you have a sense of the next steps after the meeting, we have – so after the meeting we will be synthesizing all the feedback. And developing a draft report that will be posted for – it will be posted for a public comment between June 23rd and July 14th. We will have a public webinar to solicit

feedback on the report recommendations on June 26th. And then the final report will be submitted to HHS on August 15th.

And then lastly, so why are we here today. So our meeting objective are prioritize the measurement gaps for adult immunization using the conceptual model, to identify the key leverage points and other measurement considerations for adult immunization performance measurement, and to recommend measure and measure concept development for the short- and long-term.

So that's our scope for the next two days. Are there – any kind of this in overarching questions or comments at this point? If not, I'll turn it to Dr. Reva Winkler who is going to facilitate the next discussion.

Reva Winkler: All right. These are not meant to be formal presentations. These are simply going to be launching point for discussion. But what I wanted to do is a little bit of an illustration of how measurement is currently being used around the adult immunization to understand the breadth of what's going on out there despite the fact that I think we all recognize there are some significant gaps. In the other hand, there's awful a lot of measurement going on.

Next slide. So, OK. NQF is about measures. And sort of a fundamental question in our starting is why measure. And, essentially there's a general sense that when you measure, that's what you (attended) too, so what gets measure gets done? But you can measure an awful lot of things. That the information isn't necessarily all that useful or actionable, and just because you measure it doesn't mean you should measure it. Because the counter balances that measurement is costly, it's burdensome. And so we have to weigh those balances, that's why priorities are important.

And so that's really one of the major value to the work we're going to be doing is to provide that sense of priority so that we don't fall into the trap of trying to measure everything. But find – see if we can identify those areas that are particularly useful and would likely to result the improvements in vaccination which is the main goal.

Next slide.

NQF existence over the last 13 years has been about measures. And we'd certainly seen the enterprise around measurement grow tremendously. Measures are used for a lot of different things. Certainly, internal quality improvement is hopefully being done everywhere, right? Probably not as much as we'd like but hopefully a lot. But then measures are used for a lot of other reasons. And growing used in accountability applications such as professional certifications, accreditations, public reporting, you're seeing some of the HIT incentives, and payment incentive, what people are calling the high stake (inaudible).

What we're talking about our measures of accountability. And there are also measures around transparency. Those accountable entity share information with broad audiences to be accountable for what is they're doing. So the question is who's accountable. Well, I think we're going to find as we take this little tour that measures are being used by all sorts of different entities, organizations and perhaps different purposes.

And so the questions to be asking yourself is, where are the measures being used that are probably got the greatest traction. Measures that are going to have maybe the most leverage in promoting improvements and immunizations.

Next slide.

So, I think if we start up at the highest, you know, 500,000 foot level, the Healthy People 2020 goals are certainly a national level of measurement. And so that's measuring the nation as a whole. The Healthy People objective or measures, they usually couch them in terms of change overtime which means trending of measurement but has its phase,, it's still measures. But it measures at the national level. And so the level of analysis is how are we doing in the country, well and good, but perhaps not as actionable until you dive in a little bit deeper.

Next.

Recently, the sort of regular reports that CDC publishes about how we are doing on vaccination, this most recent one came out in February, it didn't really give us the greatest report card on earth. Headlines on this in the news were pretty dismal. And so we can see that and this isn't everything in the report, I just pulled out some of the bigger ones. But, you can see that for some areas, the vaccination coverage rates are pretty poor.

And so I think hence the reason why there is, you know, a need to look at various strategies to try and drive improvement here for the obvious benefits of immunization. The question is where are we going to get the most traction. So, OK, so. So, that's again a national perspective. But this data is collected such that it can be broken down into other levels and we can get some comparative sense.

Next one.

The National Healthcare Quality Report, the most recent one from 2012, which (inaudible) very, very well. It portrays that national data in a way that looks at health states are performing on a comparative basis. And so state level analysis of populations is a very commonly used tool to help us understand how the nation as a whole is doing in performance around immunization. And we can certainly see incredible variation across all of these states. Different states have different priorities among them, but certainly as a nation we do care about how things are happening comparatively across states.

So state level analysis is another potential area of important information that is potentially actionable depending on how you use those measures.

Next.

Now, it's not just the government who is doing things around reporting of measurements. And if you are familiar with this website, it's been about three or four years that the Commonwealth Fund has created a website called whynotthebest.org. And they ask the question, why isn't the healthcare in US the best?

And they report measures. And in this case, you can see they're reporting on immunizations per pneumococcal and influenza by state. But the data they're using actually is the roll up from a hospital measures. So, somehow you have to read to read the fine prints to understand exactly what's being measured. So if you see a – rate of immunization for pneumonia or influenza in Alabama, in one site and then perhaps a different rate in another site and a different rate in another site. It's really important to take a look and say, "How are they measuring it?" "What's their data source, what exactly is being measured?"

And so we have this sort of large amount of measurement going on, but sometimes it can be a little hard to get your hands around because there is so much going on. And this, you know, again the private sector has a real need for information. And so you are seeing more and more of these information sources such as WhyNotTheBest, but it's not the only one.

Next slide.

If we go back to states, you know, not all individual states actually drilled down a bit to see what's going on in their environment. State in New York has a nice example of looking at the county level. And so they drill down to see what's going on in their purview. And so we know that measurement national level state, level of county level perhaps in a variety – depending on the state, not everyone, not all of them do this but the potential for being able to do this.

And the question is what's the value of the various levels of analysis for measurement? Where do we might have greatest leverage or the greatest possibility for impact?

Next slide.

This is just for flu shots rather than pneumo.

Next one, I got to pull that.

OK. So that tends to be the levels and then – it was in the population mostly driven through governmental public health type organizations, not

exclusively. But then the private sector who's been doing a lot of measurement and it tends to be focused a lot on the provider level.

Now, NCQA – I think everyone is familiar with HEDIS measures. HEDIS measures are well known in the child immunization and adolescent immunization. And they're widely used, widely adopted and actually have really become sort of – the types of measures that many, many organization use. So there has been kind of a coalescing around using the childhood and adult – adolescent immunization measures that NCQA has.

NCQA's HEDIS measures also have measures for adult. And this is one for flu shots. And they break it down into, you know, 65 and older and also 50 to 64. Again, we've had conversations about why that age group? Why not 18 to 64 for adults, you know, things evolve slowly.

And so they do break it down by who the payer is. And that can be important information. But I find when I read the national, the state of quality report and I see a table like this, I can't quite get my arms around it. So, next slide. I find it easier to graph it. And so we can see what's been happening over the last decade. And seeing that things are starting level up. I think some of the questions we're going to ask is about how is this being measured.

And as it turns out, HEDIS measures for adults are done by survey. They are questions on the CAHPS survey. And so again, you have all of the issues around the methodology of surveys, the sampling methodology, the way the questions is asked. That's not true for the children and adolescent HEDIS measures. Those are collected by a combination of administrative data and what they call a hybrid method. And any other sort of medical record-based data health plans can contribute to provide more meaningful data.

So there is a difference in the methodology of the HEDIS measures. In adults they're done by survey, in children and adolescence they're done more on hard data based from the health plans.

So again, we have to think about, you know, data sources, what are we able to do? So, there's an awful a lot of discussion about why aren't there more HEDIS measures around immunization.

And so when we talk to folks at NCQA, they find that the data sources are really the limiting factor. There are issues around getting the data even for children and adolescence but the long loopback periods particularly for pneumococcal are problematic as well as the one of the biggest issues is getting those immunizations outside the health plan service provider and collecting that data. So methodologically we do have a lot of challenges for collecting data.

Next slide.

Other areas of immunization measurement, the federal government, CMS in particular is –does a lot of measurement in all – for the programs that they oversee, Medicare, big program for CMS. And they have been putting information up on healthcare – on medicare.gov for, I don't know, it's been going on seven or eight years now.

And some of the information on Hospital Compare does look at immunization for hospitalized patients. This is just an example that I pulled up locally. And – well, the national average is running 90 percent for both. These are only for hospitalized patients. And here in the district met quite as good as 90 percent and you can see some significant variation among three local hospitals.

So, this information is publicly available. And so, hospitalized patients do only account for a special population, those that are sick enough to find themselves in the hospital unfortunately. And so, to the degree that you can capture that patient population and immunize them, these measures are very good. But nonetheless they're going to be a very small percentage of the overall population of the nation.

So, it's a tiny sub – but important subset.

Next one.

I just wanted to mention the Influenza Immunization for Healthcare Personnel. This is measure that NQF worked on with CDC. Megan and I got to know each other years back. Actually it's being put into effect and will be

reported by hospitals coming up in the next year. The first date of collection is occurring and – this is a sort of description of how the acute care hospital started last year requiring – they were required to report this dated NHSN for the flu season. For the Hospital Compare, the IQR hospital reporting, NHSN will report it to CMS by May of this year and then it will go up on the website.

So you're seeing that for hospitals in May, and then six months later you're going to see it for some of the other facilities, long-term acute care hospitals, inpatient rehab facilities, ambulatory surgical centers, and hospital outpatient departments.

So we are seeing that coming online now for Healthcare Personnel Influenza Vaccination. So this is a constantly evolving enterprise of measuring and publicly reporting. The government (adjusted) great deal of effort in doing these public reports.

Next one.

Home Health Compare. There's another one of the family of compare websites and I'm not going to show you all of them, but this is just another one. Again, provides information and we're seeing variable performance among the different providers. And the question is, you know, what incentive do these providers have for improving their performance. The national average for home health agencies is nowhere near what it is for hospitals. So there's definitely opportunity for improvement in this arena.

There are also compare websites for long-term care, nursing home, and dialysis units. So there is a lot of information around each of these small subsets of patients who are involved with these facilities. But again they represent a tiny fraction of the overall population.

And so measurement is picking off little bits and pieces. And the question is how do they all coalesce?

Next slide, please.

Now, this is happening in a growing amount out there in the world but this is actually public report by named physician. And the system – a medical group down in Southeast Texas, I was talking with their medical director not too long ago and he just so proud of this, he's (inaudible), but he's very proud of it. He puts it on his website. You can see the name, you got that, you know, name there. Whether vaccine was administered, whether it wasn't because of appropriate reasons of contraindications or allergies or whatever, or patient refuse I believe, and then not. And then he just – he couldn't help himself, he puts them in red, the low providers are red.

So I just – I found this, you now, really quite fascinating, you know. So, at some level and in various places, I think a lot of this was going mostly internal. I don't think you're seeing publicly reported to the same degree that they were willing to do in Texas and put it out there for everybody. But I think there's probably some motivation of those physicians to get out of the red boxes. And so it is being done. And it is, you know, I think there's certain amount of leverage here for that group to improve their performance.

So, we're seeing a wide-range of application of measures from the national level through the states and counties down through various facilities, health plans down into individual's physician.

So unlike some of the other topic areas in Task 5, adult immunization is not suffering from a lack of measures. It is perhaps suffering from the lack of the right measures or coordinated strategy of bringing all of this together.

And so understanding how what the current status is may give us a little bit insight of be able to asked ourselves, where do we go next? Or do we just doing keep the same old thing, we're likely to keep getting the same old result.

So next slide, please.

I just wanted to share with you some of the other federal programs and then measures they used in those programs. HRSA uses, you know, the usual influenza pneumococcal but also hepatitis B. Hepatitis B for HIV positive, this is an interesting measure because there's a real problem around measurement around hepatitis B because to complete the series, you need

three injections and data – capturing the data of all three is challenging. And so there are times when we see measures around – you get the first one. You know, it that really what we want to measure, do we want to measure the completion.

And so, again, methodologic challenges but that's the HRSA clinical core set.

Next one.

And these are in the Medicaid – the new Medicaid Core Set of Measures. As you can see in child's health, it represents – immunization represents a larger number of the overall measures. And these core sets for Medicaid are intentionally quite limited. They're not meant to have hundreds. They really are keeping them in the 25 measure range.

So in adults, it's only flu vaccination at this point in time. And so the question is, you know, is that sufficient? Or there are better ways to measure immunization for Medicaid plans?

So, this is kind of what's going on out there.

Can we go to the next one?

One program that's particularly – it's really unique and different but it is important to understand because it's having an impact in other ways, and that's the Meaningful Use of Health Information Technology Incentive Program, otherwise known as Meaningful Use. You've probably heard about Meaningful Use. It really is an incentive program to get providers to acquire and use in a meaningful way, EHRs. And so, there are incentives for both providers – individual clinicians or group as well as hospital.

And so, we are seeing this as a staged implementation. And so there was a first wave of folks that started out with stage one and they had not only measures within MU, but they have sort of capabilities of the EHR system. And so in stage one, all they had to do around immunization, and it was an optional demonstration to get the incentive was to test and if successful,

establish a connection from EHR to the immunization information system in their jurisdiction.

Well, at the beginning of Meaningful Use, it really kind of changed the dynamic, particularly for Immunization Information System because the incentive for this or for the hospitals and providers, there are no incentives for their (registry). But they had to be on the receiving end and be capable of receiving.

And so one of the things that the Meaningful Use program has really done is establish communication standards through an HL7 standardization platform that allows communication of EHR with Immunization Information Systems.

The issue is those tend to be state-based systems, they're highly variable, the investment both – not only resources but willingness to put effort towards immunization registry is highly variable among the states. But the Meaningful Use program is really starting to push the development of a method for collecting data and centralizing it using Immunization Information System.

Meaningful Use has been on board now for about three to four years and so those leading edge providers starting in 2014 have moved on to stage two. And new providers that come on board the program can start in stage one and so there is kind of these waves of things happening. So people who are joining the program now start at stage one. They don't just jump in the stage two.

So, stage two thought really up the (inaudible) a bit. And this one is required. The endorsement of a single standard from HL7 as I mentioned is a standard communication that allows messages to be submitted from the EHR to the Immunization Information System, and then requirement for on going submission, you know, as opposed to the test data. Everything they've got goes.

We were talking with folks on both sides of this. We talk to EHR vendors. We talked to folks at CDC around the information – Immunization

Information System. And really this program has caused a significant jumping capability, those sorts of transmissions and data collection potential.

It is not without it's problem, there is no two ways about it. Doing this in 50 different states, you know is – MU program has a single set of requirement but the other ends are totally different depending on the state, but nonetheless the new transmission, communication standards is really setting the stage for beginning to have a mechanism for collecting electronically data from providers, hospital into a centralized system.

But as we talk to the folks at CDC about the immunization system, it's not a national system. At best, it could be a network of state-based system that at this point, probably aren't talking to each other real well yet. So, there still long ways to go but this is work in progress, and this particular program has significantly improved the capabilities.

Stage three which will go into affect in 2016 still in draft, the requirements, but it's likely to be by direction, In other words, not only the provider upload all their stuff but can they query the IIS and get information that's meaningful.

Yes, that's possible now in some states, and in NCQA said that, you know, on the HEDIS measures for children, they will accept, you know, information of the IIS as part of their hybrid methodology for the HEDIS measures. So a lot of the stuff is, you know, beginning to coalesce but instead, it's still, you know, it's still spotty I think. And so the question is, you know, where can we go from here.

Next.

Now, I want to thank Dr. Nace for being thoughtful, and what I've just described, I think he tried to illustrate with this bubbles. And I think this is a very nice and thoughtful starting point to ask a question, you know. When you're measuring provider-level analysis, you know, a patient can go from a hospital. It discharge and go to a long term care facility, maybe get readmitted to the hospital again, maybe go out through a rehab facility, then may end up in home health and then perhaps they end up in their own physician's office and they're all part of a health plan.

So, that patient can easily get measured half a dozen of times in the course of flu season. So, the question is what is the goal – when we think about measurement, what is the goal? And what is the purpose of the information that we get from that measure? And just a starting point, I've like to hear you thoughts about population provider level, patients that move from site to site. Dr. Nace, would you like to just comment because you started this?

David Nace: Yes. That's the last time I'll do that.

Reva Winkler: It's gorgeous.

David Nace: Yes. And I actually, doing it, I realized I didn't put home health on here actually, and plus all the dialysis centers and the ambulatory-surgical. But this is a big challenges because we are looking at, you know, when we talk about the difference between providers and populations but each of one these areas are their own little micro population.

And I think the big challenge to that that we see as providers is that the information does not flow from one to the next. So you can reside in all of those bubbles and you can be counted as an immunization and you can be not counted as an immunization. And that I think is the biggest challenge, and I think, you know, looking the comments from the interviews that we've had earlier, you know, in our packet, the central theme behind this it is the data. And we can, you know, the important thing is yes, we should be measuring. But if we don't measure the right thing in our data isn't accurate, you know, we're just putting a ladder against the wrong wall. So, we need to get at the central issue because each of these populations, that information needs a transfer back and forth.

We conducted an influenza study, just finishing and in a long-term care setting and one of the biggest challenges that we had in that flu stage that we as the study personnel administered the flu vaccine to the long-term care residence. And we put a big note on the chart and we told the residence and we told the nursing staff and the individual facilities in several cases, re-immunize the person when their flu shot become available. And then they

went to hospital and got re-immunize again. So, we actually had a few people with multiple immunization.

So, I think that's – this is where I think big challenges.

Male: Yes. But I think that's also one of the leverage points too because the duplicating immunization to something (inaudible) pneumococcal vaccination. And I think there's – is obviously an incentive for health plans to not wait through that quagmire. So, I think there's a leverage point here to try to reduce that. And I'm wondering also one of things that that's why there is allowed discussion about the patient-centered medical record and using that as perhaps the data home, but I think that's challenging because, you know, in the United States, that's now how we view medical records.

I mean, if you think about the United Kingdom, you think about socialized medicine countries, the medical record is carried by the patients, by the patients. I mean, so patient A, regardless of where patient showed up, no matter what facility in would get "credit" for having, you know, for that patient being immunized. And so maybe what we need to be thinking about holistically saying that if a patient does have an immunization on the record, then that checks off for everybody that the patient encountered in the system, no matter how complicated that is. And that maybe one of the ways to address this problem but that's a direct result of the way we do medical care here and I don't think we're changing that so if we just could look around it.

Male: I think that's a terrific point and, Reva, thank you very much for that overview. It was very helpful and I think you asked a really important question about whether or not we should be in provider level or system level measures. I think a lot of us have read their report that was done by (inaudible) about one of the seven recommendations about how we should be using care quality measures, it actually directly address that question. And I agree with the authors that it should be more system (inaudible) articulated and more, actually I was speaking for Joseph earlier about some of the measures that land in his shop as a family physician. Well immunizations certainly are important but it's not important for every specialty.

So, if someone's landing some place where they're end up being measured for something that they aren't ultimately not accountable for, it can be kind of dangerous.

I guess the other point is I mean, one of them – and maybe is too simplistic but just thinking about things from an operation standpoint and what's really going to be impactful. One of (inaudible) really well known principle is that 90 percent of failures occur from its systemic problems with quality and where 10 percent can be attributed to an individual for nailing it down on an individual level. It doesn't incentivize the system to change.

So, I think it's a good idea to have things at a higher level and then (inaudible).

Female: I think you point it out some really good drawbacks from the IIS system and how they're different from feat to feat. We were now look at this chart here. (RI) captured data from all of the data sources and all of these different types of providers can also go into our IIS and check and see if that person had been immunized with influenza, pneumococcal zoster in the adult immunization. So, I think it's really important to not dismiss the IISs, it's too (scattered) quite yet.

Male: But the challenges …

Female: And what state is it?

Female: Minnesota. .

Male: But the challenges boils down to IISs are if you've seen one, you've seen one.

In my state for example, up until a year ago, we were forbidden by statute on putting any adult immunization data in to the registry without consent, not assent, but consent from, but consent from the patient that's recently been reversed but, you know, even if you had robust registry if you put barriers there, then we're not facilitating this. I mean the challenge also boils down to a practicing primary care (at all). I interact on the regular basis with some of my subsection colleagues and say, "This guy has got – your his primary, so

you're the one responsible for the immunizations, not me. I just take care of their cancer."

Male: Yes.

(Bob): Well, the – if you want to prevent treatment associated infections or in patient where neutropenic, you have to vaccinate that patient prior to start in the chemotherapy. So, attribution at the provider level whether it be vaccination of the pharmacy, vaccination by the primary care physician, vaccination by specialist all that boils down to the time they get to the ultimate goal of protection of the patient. But that attribution has to be systematically approached and not just thought of as an individual value.

Male: I agree with that, (Bob). And I think that correlates really closely to what I was saying. I suppose the point that I was making in that when we're doing public recording that it should be at the system model rather than the (bright low) because is that it encourage exactly what you talked about like coordination of care.

Male: I think that actually – so I had the honor of interviewing (Miriam) about MIIC and I think Minnesota has a tremendously sophisticated system. But even that I think you only have – I don't think you've captured all the dealt data yet. So I think data collection is a gap. I think obviously we need to figure out ways to improve data collection to IS because once it's in there I think it's a very useful for addressing somebody challenges. But then at the next level above than then is that once you have the data and you know a patient is immunized I think this is what (Bob's) saying, what Sam's saying, what David's saying is that the quality needs to be changed exactly. That's what it is. You don't, you know, you reduce duplicity of immunizations.

It will also stop the bouncing of patients back and forth. And so, you know, that's were we need to charge, put our attention to figure out with – how do we address that, you know, got to be patient-centered but the credit has to be shed across systems. And I think that's fundamental.

Male: You know, I agree. To me, it's so interesting. I work for a hospital organization as family physician. And most of my immunization data come

from patient self reporting. I can't quickly access – we're going to the patient-centered medical own process right now for accreditation.

And one of the main function that I'll have is coordination of care among, you know, my patients this is what I can receive their basket of services. And I can rapidly access, you know, their immunization information so that I can't sort of I don't duplicate it.

And even if we had by directional flow even in a 15-minute appointment the logistics of making that happen does that fall on the nurse to do, does that follow on the front-desk to do, do that fall on the patient to fill out questionnaire prior to seeing me. It's a logistical nightmare.

And, you know, just as an example just last week I had a patient that buy their own report and received something like five pneumococcal vaccines within the last seven years, all at different locales and had been double-vaccinated for influenza during this very season. What's that that went completely around my office they just went to the emergency room? And (ones that any argues) is that it went completely around my office. They just went to the emergency room and watch by my own clinic because we didn't get that information back in time to prevent the reimmunization.

So it truly is a logistical nightmare. And if there was a central repository that could be accessed, you know, these registries. And I think that's what we all kind of dream of the pie in the sky I think.

Male: You made two points of that because patient reporting could be so faulty. We've done a lot of studies and found out that even the next day the patient still know what vaccine they actually got. Particularly was a problem when we had the H1N1 – the pandemic flu and the regular flu. And then, when we asked them which one they got and then we compared what they actually had. And they were right about half the time.

Male: So that particular problem now is Tdap vaccine. They have no – they had no idea where they got the Td or the Tdap. And, you know, I've been instructed, you know, my nurse is starting calling it more whooping cough vaccine rather than Tdap to try to avoid the confusion but a lot of patients don't make the

distinction between the two. And so, there's a lot of revaccination there for sure.

Male: I like to think myself pretty (helpful at) (inaudible) with some that are (student). I just can't remember. Yes, right. Yes, too.

Male: All right.

Male: And if you're a large patient, you probably need it.

Female: That's right. Yes.

(Off-mike)

Male: Are you pregnant now?

Male: But I think that's a fantastic point that it's not native to the way that you do business or that you conduct the work flow. And the more that the system can be refined such it is part in parcel related to naturally good business. It's – you can't be overly burdensome or it's just not going to happen.

Female: So I think that question that we're coming to then is what we're talking about population versus provider measures. What is it that pushes the system? I mean we all agree that the data is the issue. The system needs to change. But arguably each of the providers or entities here ought to measure and ought to be to an extent responsible for patient acts.

So if you establish a measure for each of them is that what pushed forward? I mean what – why does Minnesota have such a good system. What does it made everybody buy into it and have those connections?

Male: Yes, I'm very much of the opinion that the system level for public reporting purposes is the appropriate way to go. And that once you have public reporting on system that encourages them drill down and have measures of the provider level to encourage this sort of behavior that they're either incentivizing or publicly putting it out there even if it's not even being accessed by patients to look at. Just the fact that it's out there, it's enough to drive this sort of behavior that you're looking for.

Male: So what might be the simplest is most (probably) just trade one of these in our pockets and have a way of the immunization because bar coded. Scan it into your phone with the (Qlog leader), dumps into a nationwide registry. And now we have a, you know …

(Crosstalk)

Male: So where in this quagmire of systems of changing technology – and that's our problem, right? Because there is a technology and I could argue ever person who just carry the immunization key. And that all you have is just immunization information if that's all I cared about, right? But I think we need – that's why I would say that we're at a point where we're trying to do measured gaps – gaps and measures at a point where some of these gaps actually may not exists because of Meaningful Use Stage 2 and 3 and technology changing in the next five years.

And, you know, so I think that's one of our challenges. And I think that's what Megan is kind of suggesting also. It's tricky at this point in time in trying to think it about. But, you know, as we know, I mean I want to hear what Jennifer has to say. But I think, you know, Indiana has allowed all their patients to access their registry through the web through the My Doc's Indiana Program. And that's, you know, that's a true patient-centered immunization registry.

You go online. You have a key – a privacy key. You key in your key – the pin number and then you get your immunization records that you can just then show your doc. I think it's, you know, so they went one step further and said, "You know, we're going to give it to the patient right now because the technology is there but were not there to fix it." And I think that's the challenge.

Jennifer Heath: So I think there a lot of technology challenges too. And I know I wish were at the point where we could scan the QR code and get something in our registry. But we're pretty far from that. We are working on the patient's accessibility to MIIC. But I think what really push our registry forward is probably actually H1N1 requiring all doses to be in our registry who are able to connect a lot of

different types of providers through that. And then moving forward we really try to make MIIC a part of every immunization program that we did.

So we had a mark of excellence program that was outreached to community vaccinators. In order to be a part of that program, you had to submit the registry. We were lucky enough to get a couple of prevention and public health fund grants to do more work with healthcare workers and pharmacies. And through those grants they've been able just to do a lot of outreach to those types of providers and, you know, let them know about the registry, help them get set up HL7 if that was available.

And so it's really required a lot of human effort. We do have regional coordinators in Minnesota. So there's usually a face to face person that these providers can talk to if you get set up with the registry. But, you know, all that being said its just pretty labor intense but it's something that we made a priority in the program. Not paid off.

Sandra Sommer: Hi, I'm from Virginia. We're not nearly as advance but I don't think as Minnesota. But I do want to say that our registry is moving forward. I'll agree with Jennifer that H1N1 was a really good push. We also have a couple of PPHF grants that have helped us move forward in reaching out to a variety of providers. But I also think the meaningful use has really moved us forward.

I saw in some of the comments here that there were a lot of incentives on the provider side but not very many incentives if any on the public side and that's where we're struggling is to try to keep up with the amount activity that Meaningful Use has given to us. I think it's a good thing because I do think that our registry is important to providing answers to some of the issues that we see in here.

But at this point we don't have the resources in Virginia to be able to take advantage as rapidly as we would like to help implement this. We are fortunate and then our registry does allow adults. We don't have patient access although they can get through our system here. But we do have all

kinds of immunizations. And I think it's a good starting point. Our problem is getting the data from the providers efficiently.

Male: Hi, can I make a comment remotely?

Female: Sure, please do.

Male: Hi, it's hard to know – kind of I cant get any signal. So, you know, socially to see through the appropriate time. But I agree with what everyone is saying here. You know, the data systems that are valuable currently are really an evolution and they're very variable both from state to state even from community to community and within health systems and different types of data storage that have access immunization data.

Here in Washington State, the child immunization registry which has been around for a long time is still not much here enough to reliably measure immunization coverage for our childhood vaccines. And I don't foresee an adult immunization registry capacity that will be functional in the context of providing meaningful quality measures for along time.

And so, I do – this is terribly complex because immunization of course is just one piece of important data that should be portable with patients across system. So I'm wondering if again, you know, defining the purpose of the measurement might be helpful here because clearly if you own a patient, if you have a, you know, a primary care provider that your linked to, I think its very valuable for that provider to have the ability to measure and have outcome goals and objectives that would be standardized despite the fact that there maybe circumstances during which would be difficult for that person to ascertain whether or not one of their patients was vaccinated. For instance, if they went to a nonaffiliated facility and got vaccinated somehow.

But give n the fact so many people get vaccinated in pharmacies currently that there may not be exfoliated with their healthcare chain for example or their primary care slate. And the fact that pharmacy, at least locally and I think in many jurisdictions, are not participating in any sort of meaningful data exchange or immunization registry. We're going to have challenges for many years and completeness of data and data ascertainment.

So I'm sort of flipping back and forth as I hear this discussion between the various different purposes that we would want to measure from the different audiences for whom measurement will be applied. And I'm wondering if it would be helpful to think about what again the hard objectives are for this discussion.

Male: I'll put in I think that when we discuss this in our Federal group we thought that there are two major goals for this closing discussion I think maybe there's three. So the first of all was accountability point of issue that is provider specific, you know, that this person assessed the need for vaccination. And vaccinate or record the refusal or a reason for not vaccinating the person.

The second one was the population kind of perspective or system perspective. And I think that related from our Federal perspective more to kind of resource allocation. So therefore we might want to target areas where – that overall vaccination rates are low.

The conversations today I think have touched off a third thought for me which is inefficiency perspective. That is the inefficiency associated with wasted vaccinations and the potential risk benefit of over vaccinating a population. And that might be a separate kind of measurement.

But in my mind, those are the kind of three categories and purposes I think of what these vaccination measures overlapping potentially but with discreet potential uses. And I ask people to chime in on other uses or if they agree with these three uses.

Roger Baxter: I'd like to give a perspective – I felt like a different perspective. So Kaiser is an integrative system. And our patients do have do have a medical record that ties in every place. And they do carry their records with them in a sense wherever they go we can accept, access them. And we have a lot of immunization measures. I don't know that our immunization is that great. But I think you know within our system if their not vaccinated they're saying no. And a lot of people are saying no to vaccines. But we approach them from every aspect of their medical care.

So if a person comes in anywhere like they come to the optometrist or the podiatrist, a thing is printed out with a prompt that says your vaccine is due. So they tend to have everybody telling them they need these vaccines all the time until they get so sick of it they finally give in. But I think I'm just hearing this in a provider related.

And I realized, in our system the primary care docs are burdened. They have a lot to do. They are really busy and they have a lot of things to think about. There's sometimes seeing people urgently during the winter season when the flu is around. They're not usually seeing people that routinely for routine care. They have a lot pneumonias and colds.

So take that away from them and we put the burden on the system to vaccinate. And so everybody, you know, kind of puts in their own effort. But we make it so that vaccine is available not just in a doctor's office, and not just for doctor's order but they can just walk in and get their shots. And a lot of the shots not just the flu, the, you know, their due for pneumococcal or their due for proptosis, and everybody knows that.

So, you know, just when I think about these measures I think it would be very difficult for the primary care docs who are already burdened by these to feel like someone's, you know, cracking the whip for them to do even more than their already doing. I think their already feel very burdened by the whole job.

So for me it does mean – it does take a village to vaccinate. For our people, it takes a lot of effort to vaccinate. Our vaccine rates aren't super great. But we are offering them. But – so we're people are turning us down. So I think it has to be – we have to (comment) from many, many different angles.

Male: I think that's – the point of the standing order is one that is probably underutilized in many areas. And I think that's something that Kaiser has done very well. And some of the places have done quite well to try to spread that burden out to at a system rather than being individual. The challenge again comes down to if you have too many standing orders then you sometimes get into a prioritization challenge that can fit into a variety of different settings. But standing orders, you know, having the team responsible

rather than just a single individual for making those immunization decisions is important. We can have a rich and responsible life today.

(Off-mike)

Female: Michigan's has this very – I'm on – yes, very large patients under medical home. And so, we do attribution of our very large population and we've three very strong large HML. So, we can get things at a provider level and our make registry does allow us to enter information for adulthood. It's not being virtually – (not being) at all because we have it incentivized and because it isn't a part of the law. The law that was connected for kids real (may cope) behind the law but, at least, you know, people (allowed) by using people or like, "Well, (trust) I'm going to follow it." Then, we incentivize.

We have not incentivized in the same way for adults. And I'm very worried about data (inaudible) because really sort of dealt most of our immunizations are done at pharmacies because we encourage that, we contact that way. So if we don't figure out how to get the data into out Michigan registry, we're at trouble. The other thing is this is all Meaningful Use stuff has been kind of thrown approval by NCQA.

NCQA no longer allows us to use data from registry. Other than like MICR are disease – immunization registries are allowable. Electronic medal records are allowable but registry data is not allowable without primary source verification and has a huge standard that we have to meet.

You can only – there's a 50 sample out of million of records believe it or not. For every data source that go in as a nonstandard supplemental data source into the HEDIS world now. You are allowed one (here) if you don't pay us you're allowed to second change. If you don't pay us that data comes out of the HEDIS report.

And to date, we're still in the funny world. That start of last year we had to pull out data because we had terrible data in some of our disease registry terrible. We preaudited and new we wouldn't cancel standard. So we pulled it out. But because we didn't tell the physicians we decided to leave the data in

and still incentivized them on the data. So now this year we got to figure out how do we bring the two pieces together.

So if you can't use it for HEDIS, it's going to be a real problem. We're going to have incomplete data, incomplete reporting and were paying for something that we can't use which is another (hard point).

Male: So, within your system – so, you know, a person's been vaccinated or not …

Female: Yes.

Male: … and, you know …

Female: Maybe. Maybe.

Male: Well, for pretty well …

Female: No, some of us – we found – a good example is we had one large physician organization. Very good organization. They were putting refusals getting the vaccine. Yes. So, I mean in there very ….

Male: OK.

Female: … they're very reputable …

Male: Opposite world.

Female: … but we caught them then were like what did you do with here? We coded wrong. So actually you could input refusals but you should have map to refusal not to – got it. Got it. So do you know what I mean, we can't count them some of our data at this point.

Male: Going to make some suggestion that I withdraw everything.

Female: You don't want me to go on forever but how long have you thought it ….

Female: We've had – we've notice that in that too and its consent data (clinging) effort. What we've seen is that providers will pull some of the portion of EHR that's the order and not necessary …

Male: Correct.

Female: Yes.

Female: … say – you have to be very vigilant out here.

Female: Hey, Cille, you said it was labor intensive. It's hugely labor intense..

Cille Kennedy: You know, I don't want the challenges with data collection to undermine the process because I think we need to do a better job of getting the data collected because that's the fundamental that we're going to rely on for everything that we're already talked about in terms of all this. But – so maybe that something we should identify as something as we need to recommend is obviously ways to clean up the data collection even if it's quick to see education I mean hopefully, you know, as simple as that. But that I don't want that undermine the – I think we need to get some next step and that is that we know what's Meaningful Use, we know what improvement of technology.

It may not be today, it may not be tomorrow, but in the next five years, we're going to get a point where the data that is going to be reliable and trustworthy. And I'm thinking this is just question I think that I'm trying to answer, Reva, is I'm thinking we're trying to make the gaps that would – of measures that we're talking about for that time, right or are we – I'm concerned about trying to plot out and involving technology in IIS market as we go forward.

Jeffrey Duchin: OK.

Female: Let me …

Jeffrey Duchin: This is Jeff. Before you answer, can I just add to that because it's (inaudible)

Female: (Kind of) …

Jeffrey Duchin: Thank you. It's basically following on that point and I'd like to hear you address this in the same context. Its seems to me that, you know, either we have to set a goal for future time when we have better data or we need to establish measures for variety of different scenarios – and I don't think that's

the best thing and certainly because they do have people that can do better quality measurement now then others you might want to do how a flexible set of criteria that can be applied depending on what data – what's the status of data availability and quality. That's all I wanted to say. Thank you.

Female: Couple of comments if you notice the last of objective that Juliet showed you – we want the third bullet is recommendations for the short-term and a long-term. So the idea that there is something more immediate versus something that's going to take advance of things that aren't quite here yet. But we can kind of maybe see poll lessening out there. So I think that's definitely on the table for you.

The question I think in terms of short-term is what sense of urgency and immediacy do you feel that needs to be addressed such that you would just do it what you can do now knowing the world's involving, the system is evolving, and there's a future in five years (healthy). It's not that far away, you know. In all honesty, a measure development of data systems and all of that really take a lot longer than you think so five years actually is more short-term than long-term but nonetheless the concept is the same.

So I think both of them are quite reasonable because they reflect the reality we're dealing with. If you foresee the real sense of urgency that you want to get something going now you have to deal with the now reality. If however you want to, you know, play with the future a little bit which I think you perfectly reasonable then, you know, consider that. But we may have to have those two kind of thought processes. That's of my thought.

Male: Sure. And then, I'm concern about moving to the long-term about what the barriers are and what the barriers are what HHS and NQF could do to try to get over some of those barriers. I mean is the reason why there's s a lack of system in all these data collection in adequate standards, is there inadequate standardization of measures or data processes, and then, what can we do to try to promote that? That's my issue number one.

The second one, I think what I'm hearing is that accountability is just very, very difficult in this particular area it can hold individual providers panel

because they part of systems. And they look to each other. We can't even hold individual systems accounting because people get things out prior to the system. So, maybe we just take the hold accountability measurement out of the table. I mean why go down that route if you can't really hold anyone accountable for this (over innovation)?

Ernest Moy: Yes, I think, you know, the question came up is what the purpose of the measurement was earlier. And I think that this is a important issue to look at we said we want to do is increase our vaccination rates. Ultimately, we want to decrease our vaccine preventable disease rates? And that's be at a higher level which we have got to but to get to that level you have to improve the vaccination rates.

And if we have separation by silos within the community between health systems, providers, and what not, the only way to do – I think be able to do this is to be able to have some place through these immunization registries that there is data that can then filter back down to the provider. And I think ultimately, if that data filters back down to provider, you notice it's nursing home X,Y, and Z that have a lower rates. Then you can look at those and target those particular facility and say, "This is where your processes need to start to improve."

But this physician over here is doing a pretty good job. And maybe he shouldn't have to rely so much and put so much effort. So you can start to take that pressure for the efficiency and effectiveness within an office operation based on the data that you have at a higher level. And that tells you, you know, I should work on this and this but not these things. And so, it maybe helpful for the individual providers having that immunization registry data.

The way I think that we can get that is that each state right now has their own immunization registry. There's no national registry. But the concept of the network I think is probably a good one. And there certainly are, you know, people that we can pull in from the various states and say "I think and an ideal registry would look this with these exceptions with this data basis, et cetera, promoting things like model legislation to put forth in their own states.

And leverage that to the states by saying, "If you apply for a grant and you want to get legislation done that needs this requirement. We can provide funding to do this. And I think that might be the way to incentivize from a public standpoint the implementation of registries across that at least have shareable data elements and commonality.

And that ultimately long-term you can even say when that person goes from nursing home X to nursing home Y in that state the different state then the registries can actually talk to each other. So that's kind of my thought.

Male: Ernie, just tonight I think David really nailed it a little bit here. So I think you also I think you also you missed out one final thing which is this idea that I think measurement also allows us to look at patient reported outcomes. And I think that something that for – especially for adult market, it's something that's important. I think it, you know, I know you – you're not a big doctor vaccination fan.

But I think patient reported outcomes are important. And I like the term, you know, this is the term I stole from (John Michelini) in Canada. That VPD is Vaccine Preventable Disability for those who are over 60. And the question is that the vaccination may not prevent illness but it can prevent disability that leads to frailty. And I think those are the things that we – those are patient reported outcomes that we don't really good job of measuring right now.

So I think that something that interesting to look at because, you know, for – if you – and you're a gerontologist so I don't want to take this, you know, to put this on your mouth. But I think if you think ask your 65-year old patient, you know, what's the worst possible thing that can happen to them, their answer is when I can no longer being independent, when I have to go from walking to using a walker to being a wheelchair. And I think those are the things that immunizations can prevent. And the patient reported outcome that we don't measure at all.

So I think that something that's a gap. I think that's something we should take a look at. So that just a follow-up on what you said. But to answer Ernie's point about, you know, why people not doing adult – doing this. I think we

sometimes we feel to recognize the difference between the adult vaccination market and the pediatric market, right?

I mean pediatrics is a huge performance in terms of wealth care. I think in adult I think what we have and it's focused in two specific populations of providers. You've got pediatricians and you got family docs. The adult market is very diverse and it's very wide and it's free market it's – it's driven but private payers distributed by pharmacy immunizes, community immunizes family docs, internist, OB/GYN.

I mean it's huge diverse provider group. And therefore, I think David's right I think the incentives, all the sticks to make you participate have to be greater because I don't think there's a lot of push to do because of the diversity. I mean if you running a pharmacy what is the ROI for reporting to registry from me. I mean you need to make that worthwhile either with stick or carrot or it's not going to happen.

And I think liquor actually does pretty well with Walgreens. I think Walgreens actual one of those …

Female: Liquor? Yes.

Male: … big gold star performance out there.

Female: I think it's variable. We've done a lot of research on – at the NAPD level of individual pharmacy and you may have Walgreens. These five stores do great big five to terrible or probably 10 to good. These do nothing. So with variable – but I agree with you, incentivizing seems to be our way that we make those data …

Male: And that's because of that …

Female: … in our state.

Male: … breath and I think maybe that's where gap is also looking to see where we can use measurement to incentivizing and punish unfortunately. I mean, you

know, Roger, I laughed because, you know, you're talking about the, you know, you got Kaiser which is the closes thing …

Male: Yes.

Male: … we have to socialize medicine.

Male: Yes.

Male: So …

Female: And we don't get this.

Male: I would like to comment on two things. If I can remember them, LJ, and after that – so the first is vaccine preventable illness. And I think that is incredibly complex. And I think that a lot of our work has been done and showed that the vaccines don't work so well. That we can really measure their use in preventing the diseases – zoster – if you want to look zoster, the more you need zoster the less the vaccine works.

And that's been pretty clearly shown so the more you see, you know, you're going to see people who have vaccinated the more we vaccinate the more people you're going to see with illness who are vaccinated. But the – so the – but the good point I wanted to make that we talk about this Meaningful Use stuff I realized. And all we're talking about here is immunization tracking systems and how pitiful they are in some places and how nice they are in other places.

Well, you know, maybe some of the measure we should be using are measurements of immunization tracking rather than. Just like this measures you had here. You start of real simple. Well, you just have something to show us and then move forward. But maybe we should be looking at things like that rather than before we look at actual levels of immunization.

Male: Yes, I think if you really want to have immunization registries take off you have to leverage him. We have put the – you have to target that. That's the process.

Jeffrey Duchin: This is Jeff. Can I make just a quick follow up on this zoster comments?

Female: Go ahead.

Jeffrey Duchin: The – I mean what you say is true about zoster, you know, the vaccine effectiveness claims with increasing age. But that's not any different for any other vaccine for adult. But the influenza vaccine for example, so you might make an argument that there's a threshold after which it may not be as important to measure vaccine coverage in adults after certain age because you have diminishing returns.

However, with zoster vaccine and I think you can argue even more so with zoster vaccine and influenza vaccine, there maybe a significant benefit of vaccinating adults over 70 years of age. I think the juries out and I think it's pretty mature to conclude that that's not useful of the burden of (postherpetic neuralgia) and that's prevented although clearly not as many high proportion of vaccines of 60's, 70's and the 70 to 80 year old range.

It's not trivial or I think something that necessarily is not worth measuring. But I do think that, you know, data are still being collected on this. But again I mean influenza vaccine is probably worse. So, you know, I don't think zoster unique on that.

Male: So I think you may have misunderstood. I was – LJ was talking about measuring actual outcome of vaccine preventable illness. And I just meant that I wasn't, you know, I'd agree I think measuring vaccination range is good and I don't have anything against vaccinating extremely older people for – even in their 80's even though the vaccine effectiveness fall off markedly. Twenty percent is not, you know, it's something.

So I didn't mean that. I just meant that if you try to measure, you know, like everyone I can think of invasive pneumococcal disease is two rare to really measure very well. And that you'd have to system where you pick that up. Influenza would be the most likely to benefit from measurement of effectiveness. And so, we are, you know, around the country. They're doing a lot of effectiveness work. But that's really tough. That's really complicated. But zoster for me I thought off the plate.

Jeffrey Duchin: And just to clarify, I – when I talk about measuring outcomes, I'm actually leery about measuring the outcome of disease impact. In other words, these are the incident of disease and especially those over 60's. I think that challenging because I don't necessary to believe that you got to prevent infection. So what I was talking about was this idea of the patient reported outcome of progression from being healthy 65 year old to a 65 year old who has muscular atrophy because they been in bed for a month due to influenza.

So that outcome is what I think we don't track and I think it's challenging to track. But I think what – but what it gives us actually is probably a better understanding of the value of the immunization to someone who's over 60. And I think we don't look at that, right now I don't anyone to looking at that.

And I think it's an important measurement that an outcome measurement that if the patient reported outcome. You know, I want to be able to keep walking. I want to cook for myself. But because I caught the flu and was in bed for a month, my muscles now are no longer strong enough and have to use a walker. I think those are the things that we don't have any measure for because it's been very hard. But I think it's a gap and I think it's something to need to look at.

Male: Just a comment on the on the zoster and influenza and the vaccine effectiveness in older adults. My though is that, you know, vaccines don't work well in older adults vaccine effectiveness does go down. But, you know, in part when you look at influenza we still immunize with it because outbreaks are disastrous and there's mortality associated with that. It is very real and palpable.

When you look at disease burden with something like Zoster, or yes, postherpetic neuralgia is, is very difficult to this and acquiring shingles may or may not be difficult. It depends on whether or not you get that PHN. The problem there is, as we said, the folks that need that vaccine the most are the ones that are the oldest and they tend to respond less. But, what we should look at there is not necessarily an age cut off, but a frailty status cut off, because frailty is probably the biggest driver of immune response.

So if you have, you know, two people at their 80 and ones in the community playing golf and exercising on a regular basis, the likelihood their immune system is going to response is going to be higher. So, that comes into not necessarily ruling it off, but creating exceptions. So for the frail patient, saying this person is probably not likely the benefit given the frailty limit life expectancy.

We looked at this with Hepatitis B because of the outbreaks of Hepatitis B within long-term care facilities which have a 90 percent mortality rate. And it would be great to immunize all nursing home residence except there's a three shot series. The average life expectancy is going to be two to three years, if you're not in that short six-month survival group.

And are we going to go through that whole process for an 11 percent vaccine response rate. So it's the frailty status and that should be built in it as an exception. And rather more caution in terms of the age, and not focusing on age so much.

Male: We looked at the – when we were doing in studies looking at influenza vaccine effectiveness, we were looking at mortality. And – so we thought that when we looked at the data that it would show that people who became more and more frail got more and more vaccines. And that was true up to a point, but as it reached to sort of a threshold of frailty, I don't know if it was mobility or frailty or what, but as they got close to dying, they never got their flu shots. So it made it looked like the flu shot prevented all death. When in actuality, people who are about to die just didn't get their flu shots.

And – so I think that's a really important thing, people who are really frail, they don't get them, you know, at the beginning of looking at it, we felt, well, maybe we should focus on these frail folks and get out there in outreach programs and bring them in. But – and I don't actually know the right thing to do. Should we focus on them to vaccinate them or should we let them die in peace, I don't know whatever it is, they're, you know, they're just at a very frail point. Should we not push it because they're not going to respond anyways? I actually don't know. But I do know they don't get vaccinated.

Male: We don't have to go into that really kooky around, because I think what we're saying is that we (thought) recommendations of vaccine use, and the question here is how do we measure that. And I think with immunizations, we have the additional benefit of that, it – we can measure process and we can more or less suggest that this is going to be a reasonable outcome from it. And caveats aside.

So I think that's one of the things you have with the adult immunization. So, and I think, actually, that's one of the challenges with measurement also, I think the measurements were immunizations adults and adults have kind of evolved along with ACIP recommendations and that's why you called the – it's all the stars and (stops), and the, you know, the environmental scan kind of reflect that, because the ACIP recommendations have never been evolving the right way. I mean, you know, early on, you show the slide (Y) 50 to 64 and then 64 because that's how flu evolve.

I mean – and I think one of the challenges now is that we should step back and take a look. And I think it would be a lot easier for providers to assess and immunize and perform to our measures if our measures reflect the ACIP practice. I mean, what are they supposed to be doing. And I think that's one way to actually look at consolidating some of these things as well.

Laura Riley: I also think that for the sake of specialist and for the sake of the patient who's going to see all these different specialists, I do think that you have to have these process measures that we all follow, because, otherwise, it really does all fall in the lap of the (PCPs), you know, and (OBDINs) are not going to vaccinate unless they have to.

And it's been, you know, and (OBDINs) are not the only people, it's the cancer specialist, it's, you know, whoever sees the patient and, you know, things like standing orders are great, but standing orders only are going to work if you're in the environment with your standing orders. So unless you get admitted to the hospital, you're never going to see those standing orders, you know, unless you go to the, you know, ex-clinic.

So I feel like – I hate to think of it as a (six), although I know that all of these things of this into (six). I mean, you know, I think that's one really important thing is that if we don't have process measures, all specialists, everyone who touches the patient won't have the opportunity to remind the patient that, "Yes, you should be vaccinated."

The other thing going on in another comment, I think it's really important that we look at some of the subtleties of, you know, efficacy of these vaccines, because the public isn't buying. When you come out with, you know, at the top of the USA today, a flu shot is only 60 percent effective and, you know, whatever that number is.

Your average person is saying, "Well, what am I bothering to go to CVS to get a vaccine, that's only, you know, 60 percent effective." So, unless we can start explaining to people, you know, what that really means and that they're may, in fact, be benefit, "No, you're not going to die but you might get in and out of the emergency room, you know, quickly or, you know, whatever it may be." I think until that message is clear to your average person, I don't see the vaccination rates going up. I don't care how many times you offer because I get to the same patients who are like, "Really, I'm good. I don't really need it. What's the likelihood my kid is going to see (whooping) cough. I've never even heard of that."

I mean, you know, so until they see the value in being vaccinated, I don't think we're going anywhere.

And then last thing I'd say is, if there's a lot to be said for folding immunization in with preventive medicine and so, until we can sort of get a population, people would understand prevention is where you want to be and not wait until you're sick and go to the ER. You know, to some extent, pulling immunization out and making it something special, maybe hurting us. And maybe rolling it in to, this is part of taking care well-woman care, well-whatever care, well-adolescent care, maybe something else to think about.

Male: I agree with that totally. I think, you know, especially in this (inaudible) of, you know, Obamacare whatever, and preventive medicine visits costing the

patient, you know, nothing in most of the cases, and including all of the preventive services that go along with that preventive medicine visit.

And perhaps, getting patients immunized would better happen if the payers or Medicare, or, you know, Medicare doesn't even really provide for a preventive medicine visit beyond the initial one. And so we have to come up with creative ways to make sure our patients receive preventive services, once they get beyond the first, you know, year of Medicare. And if there were some way to make sure we got those patients into the office once a year for a true preventive medicine visit instead of trying to do it sort of on the side during an acute care appointment or a chronic care appointment, which is what happens most of the time.

And there's simply too many preventive medicine recommendations and measures to do on a side like that. So, if, you know, they use to be that preventive medicine exam kind of a – I mean, I can't remember it where I felt probably five or six patients a day that were coming in for their complete physical. And that idea is kind of, I don't know, gone by the wayside for whatever reason, and maybe we should rename it and reemphasize it, and have the payers reemphasize it.

They are emphasizing it more so than they use to, but I don't see it arise in the actual patients coming into the office for that preventive medicine visit.

Female: I thinks there's – oh. Just kind of the alternate perspective because I agree with what Laura and Joseph had said. But, maybe the idea is that we would want to encourage measurement in opposite direction, which is if most older patients particularly are coming in for a chronic care visits, then maybe the idea is to fold recommended immunizations into a preventive care set for certain subpopulation, you know, if you're having a cardiac care visit, make sure you have a flu shot in there if you have a diabetes (vision), make sure you've got flu and (hepi) in there or whatever. And it's not as holistic as looking at the entire population of older adults that it might better reflect how people are accessing care.

Male: So, something that Ernest started out by saying and I have to agree with Laura. So, do we really need accountable in the measures, I mean, there are a lot of some level problems and we're hearing that (Skyzer) has got really good (tractor) of what's going on with the immunization and there's still there's a gap. And if you look at the VA, they have been pretty stable, they have been at their own (EE fewer superspent). And actually, at the VA systems of the clinical staff vaccination rate is going down. Or it's about three, four years as a continuous decline (wall) there.

And if you look at some of the countries where the performance measures have been in place for quite a few years, if you look at just (UK) system, they have started taking immunization out of the performance measures, starting with the (address) population, because they're actually not seeing any difference.

So, it goes back to, do we need accountable in the measures or something like what Laura started saying, is it something – we need to do something else. But performance measure is not going to be the fix for it. What – it goes back to something we discussed a lot, do we need a performance measures for everything, the good clinical care, something we should be doing. Or should we be doing something else for it.

Samuel Stolpe: You know, I think that's a terrific question, and at least speaking from pharmacy's perspective. And I was very interested in your comment that you're utilizing pharmacies more and more to drive immunizations, and there's a huge disconnect between pharmacies and reporting, and, in fact, that my organization is starting a task force specifically to follow up on the recommendations of this committee to meet the needs inside of community pharmacy, but.

Just to speak briefly about what's incentivizing the behaviors inside the pharmacy now. So, for example, the average reimbursement rates for influenza right around $17 per Zoster is on 14, 11 for pneumococcal vaccines. And you'll see increases in rates associated with vaccinations just based on reimbursement structures. So, there's market force that drive it certainly. But, there's been this emerging trend of embedding risk onto community

pharmacies from a payer perspective, for example, Inland Empire Health Plan is – has a really interesting structure that they've got over their fee-for-service chassis, where they're encouraging or they're paying out quality bonus payments to the community pharmacies of service or beneficiaries.

Such that, our performance on PQA's measures which are embedded in the star rating system, that they'll give them bonus payments, if they hit their performance measures and improve that plans star ratings.

So I – but the pharmacies have responded by improving medication adherence and their populations in creating programs to drive that sort of behaviors, and trying to resolve a high risk medications, the elderly, et cetera.

But, one of the disconnects that we're seeing a lot is between community pharmacies and ACOs and as everyone knows, measures 14 and 15 inside of the ACO 33 measures that are directly to influenza and pneumococcal. If they were leveraging their community pharmacies to help them perform on those measures and incentivizing, and sharing in savings in the MSSP, then we'd probably be seeing an increase in the rates just as we're seeing decreases in high risk medications in the elderly, and improvements in medication adherence because of the overlay.

And granted, that those overlays on a fee-for-service chassis, it's pretty small. It's just biting at the margins of what's really – where the real payments are coming from, but because the reporting structures are in place, pharmacies have focusing on.

So I think that the – I don't think that that's the be all and end all of driving the behavior, but it certainly could help.

Male: I think it's important that, you know, for those of you who know me from 15 years ago, I've been pushing for measurement in adult immunizations for a long time. And I don't think it's the end all, but I do think it's a very important (cog) and a big puzzle. One thing that we've always say with the adult immunizations is that, you know, it – because of the diversity, the challenges that we face, you can't – it's – the reason why we've been failing, it's what we've been doing is we've been picking away a little components of it.

And I mean, what we need to do is we need to actually make it – kind of look at it holistically and recognize that we need to drive, provide the behavior, but we also need to drive public behavior. And that's what the advocates are trying to do. You know the summit that I chair CDC, we're trying to improve public performance. And I wish we could measure the individual member of the public and say you failed to performance therefore you don't get tax break this year but we can. But we're trying to incentivize that time, you know. I wish we could but we can't.

But in off that, we still need to have someone drives the providers. And I think that's where the measurement comes in because, you know, we've talked about this. You know, if you don't pay them, if the providers aren't offering it and the public may demanding it, you're not going to succeed and you can't do one without other. So if you create a system where let's say we succeed and we get Laura's patients demanding flu vaccine but because of some reason either Laura decides she doesn't want to vaccinate, you're going to fail.

And so, we need to have it such that we have a system in place, you know, system's measurement that drives provider performance while we're driving patients into the office so that they merit jobs. And I think that's how we kind of – I kind of look at it at least. So I think it's needed. I think something that we have too but I – to do but I don't think it can drive change by itself. And I think that's the point.

Male: Just a follow up on that, LJ. I think, you know, it's not only the issue of thinking about as a metrical system of providers, you know, supply and demand providers in patient. I think the nature of the recommendation particularly around this immunization or that you don't – it's not just for patients. It's for people who are well. So if you take for example flu shots recommended every 12 months, you know, a huge percentage of those folks will never see a provider during those 12 months. They're healthy.

So, one, I think that's why the pharmacy work is tremendously important but I think we, you know, we need to think of it structurally in such a way that, you know, these circles, this Venn diagram here is in case by a huge box and

there's a whole a lot of people between the boxes in the circle. And, you know, those, you know, it maybe less true for pneumococcal which is only recommended once. So, eventually you'll end up seeing a provider but again, the point that was made that by the time you see a provider, if you're sick, you may actually be less responsive to the vaccine.

So, just again, to emphasize this, you know, break between the issue of, you know, patients who are subset of those for whom those services are recommended.

Ernest Moy: I wanted us to bring us back a little bit to outcomes because I think we started that and now something that we are really looking for help on. It's when we debated internally about whether or not that we should go down that pathway or was not the science is just too complicated to do. And I know we've debated on multiple times with not it ought to be on the list of things that we include here but it strikes me that we have difficulty arguing for vaccinations, walking to some of the groups that could actually help us to great deal because we don't – can't quantify this outcomes well.

We can't do. I could see it for diabetes or other kinds of condition saying, you know, this is the number of sick days you'll save, this $1 you saved, your employer, perhaps on the main leverage once we haven't talked about yet and honestly not the money would you could practically save from lost work days if you in immunize your population. We can't make a case for the population perhaps very well that we often get immunized. And so, I did want to get some specific comments about outcomes measurement, is a science ready, is there a need for it, is the reason why we don't have more states jumping in to develop immunization systems because they really don't believe that it is – that worth while to vaccinate from cost efficient time perspective for employers or patient not being vaccinated.

This it the lack of outcomes information that's driving that, you know, it does (strike in) very strongly. The difference is between adult and kids. The other reason is because obviously parents are held accountable for their kid's vaccination. You know, if vaccinated, they can't go to school. Why don't

employers hold their employees accountable as well? It really is cost saving. Why this day, you can't work here once you get vaccinate.

Male: Let's say we're beginning to see some data with influenza and I think that's in model, you know, I mean, (Christie Nichols) on a bunch of those and I think that's some recent ones that were also done at CDC. That have made a very – that made an argument on cost value proposition for influenza immunization for employers. I think those are out there. I mean, there's a 2007 paper from (Molinari) that talks about that but I don't think it's been done with other adult vaccines and I think that's because of the confounders.

I mean, it's a difficult challenging population and I think that's one of the reasons why there's not a lot data. And I know the health plans are asking for that data. So I think that's something that, you know, maybe we can put our heads. I think we need to measure – so outcomes is challenging because, you know, you got – if you're looking at prevention of disease, we know that vaccines especially as the population ages are not – is not 100 percent effective. And what my concern is, that I think we've done such a great job of the numbers of pediatrics where we – where the pediatrics immune response, you're going to get a much better effectiveness rates of vaccines. And we've got an adult population that's kind of foiled.

You know, we see a vaccine that's not 90 percent, we kind of say, "You know, it's a large – then, you know, it's only 60 percent." But you know what, I'll remind everybody when malaria vaccine was an out last year, it was 50 percent effective and we were jumping industry. So I think we need to kind of revise our process but again, this an advocacy component, right?

I mean, that's something we need to kind of help educate the public on. But I think in terms of the outcomes process, I think we need to figure out how to deal with that confounder. We don't have 100 percent effective vaccines. They're not even 90 percent. They're not even 70 percent for some. So the question then is how do we look at the – if you look at an outcomes of prevention of incidence of disease, that's a tricky outcome especially when our immunization rate are at 30 percent or 40 percent.

You don't have to sample. You don't have the data size. It's very hard to look at that but I think that's the challenges and I think – but I think we need to figure out way to do it because the plans are demanding it, the employers are demanding it. I just wish I knew – I was smart enough to figure out a perfect experiment to that.

(Off-mike)

Female: Me?

(Crosstalk)

Female: Sorry.

Female: I just wanted to comment on the outcomes and especially with effectiveness of flu vaccine. So we come and got a bug in our ear in Minnesota and pretty early about the effectiveness of flu vaccine. And it really presented it a hard (message) for the health department because we're hearing the vaccine is on 60 percent effective. But kind of like LJ alluded to, that measure is laboratory outcomes of influenza and it didn't measure all of the other outcomes that could arguably be more costly like hospitalization, mortality, et cetera.

So one other things we've really been working hard to do, is to really educate our providers and to get that message out like, you know, this is what the research shows and this is what it measures but we still have this vaccine as with that tool we have. We still believe it's cost effective. And to be honest, like LJ also mentioned, you don't know if the studies will ever catch up to be able to show a definitively how effective flu vaccine seem like or really any of the other adult vaccines. And those outcomes that are costly are off, are also really hard to measure too.

Female: I just to second exactly what Doug said which is, I think people do want that data and I'm working on healthcare personnel vaccination data. They ask for it all the times but I don't know if they want it annually across the entire things. So we should set up national outcome measures. I think they want to have a couple of bit that needs to be done and then everybody gets so excited and they get to sight that study over and over and over.

And in vaccines, you have an incentive process measure. Although they are not perfect, they're much more comfortable with vaccines than the process measurement because when we know they work, they worked. So, you kind of stop at the process to an extent so I don't know that setting up outcomes measures at the level. I think we're talking about here is necessarily useful.

Douglas Shenson: And I agree that because only when I did say. I think immunization is one of the nice things that we – I think we can really just positive measurements because we know what for that will work. I think our challenges that that's very true for pediatrics. It's less true for adults and what are – and so – I don't think this is measurement issue. I think this is – I think if we measure process, it's good. Our challenges to help other folks outside is advocates to understand why we don't need to measure outcomes are strongly as we, you know, for immunizations because we do know they work and I think that's a different challenge.

Female: Just sort of taken away from the focus on immunization per se back to the greater measurement enterprise is going on, there is a real premium on outcome measurement by a lots and lots of stakeholders. We accept what happened to patients. Patients don't necessarily the value getting injection. They do value not getting the flu.

So there is a real sense that it's the outcomes that matter because that's what really impacts the patients. And so, we're talking about other areas for instance, you know, how many studies need to be done that showed the beta blockers after NAMI reduce mortality. We have the measure for, you know, for beta blockers but we also measure mortality. And those are inherently interesting and important to a lot of stakeholders.

Even though we know the connections there – good deal, keep doing it, you know, but the actual outcome itself – when we were talking to (Andy Baskin) from a (inaudible) and – about outcome measures need. So that's the return on investment. It means that, you know, for flu which is probably the easier one and compared to the others is that they don't do it all the time but allowed the health plans do it particularly in bad flu year and realize they've really taken a

bad financial kit for low immunization rates on a bad flu year. They're cost is so high.

So there is important information to be had around outcomes that is salient and important to a lot of stakeholders.

Male: You know, Ernie, I really like your – I don't if it's was tag and cheek but you mentioned like a – the idea of having employers helping the employees to standard it. Maybe you think about the much talked about safe rate employee health base to healthcare. But they have the series of measures on patient behaviors essentially. And may this is – I don't know. I was indoctrinated in pharmacy school with this idea that pharmacist are the most underutilized resource in the health care but it's simply not true, it's patients.

And if we're getting patients they are like refusing to get an MMR and we get these outbreaks of measles in New York just because simply they're not incentivized to any sorts of behavior. I wonder if we should be looking at some sort of like health care efficiency measures or cost of care measures or something. They can be utilized by employer based healthcare to drive immunization at inside of – amongst their employees. I like this idea of keeping healthy population's healthy. We need to be aware where the – one of the sweet spots were.

Ernest Moy: I'm just going to raise a comment. Also I know – maybe part of the issue is the framing that we do that immunizations are separate from other kind of preventive services. You know, don't I wish that I could tell my patients that if you exercise, there'll be 60 percent effective in reducing number of heart attacks or to – are on a good diet, (and safe to say) to go – wow, it's 60 percent. In any other context or maybe we need the papers that actually kind of try (inaudible) that way.

Male: I thought LJ's idea about the tax break for vaccines was very right on and I think this is something that this group heard first here. I don't think he's …

Litjen Tan: And I'm running for president next year. I think, Ernie, your question is – yes, I agree, outcomes are important but I'm concerned about relying entirely on outcomes measurement especially for immunizations because we do know

that immunization work and the process is just – if getting in the (arms) is often as that important. Personally, I think maybe more important but I think – but then, that being said and if you want to do to talk about outcomes, I can think of what I said earlier in terms of patient reported outcomes in terms of reduction and disability.

But then I'm thinking also, what kind of outcomes are we going to be talking about in terms of that. I'm very concerned about using reduction and incidence of disease simply because all the confounders I brought up earlier. Unless, you know, you know, as Megan suggest, you do one study where you basically (by pass a RV), you know, and – but I don't see a way to get it at outcomes data without all the confounders and, you know, there are a lots of smart people on table so maybe someone can come up with that but.

Reva Winkler: I'll just point out that again, outcome measure development in other areas, have exactly the same challenges. It's not. And so, the question is – asking the question of what is that you want to know. And it's not going to be a matter of doing randomize control trials. It's going to be a matter of used of compared data from one measured entity to another measured entity to another and determine whether there are, you know, actions or things characteristic about those entities that gives them different outcome result. So, you know, the measure developments around outcomes aren't going to be exactly the same thing as your (class research post).

Female: And so, I think what I heard Reva is saying earlier is that – and I would agree that you kind of want the measure to chain. It's important to measure outcomes because that's what happens, that we, you know, that the process works. So, I guess what I was trying to say is kind of a combination of what Reva and LJ were saying is I agree that you want to measure both. But I guess if we were talking prioritization, I would say my priority is first to make sure that the process to look at the gaps in the process measure which is instead that outcomes aren't important but I would be looking first to make sure we're measuring the process well.

Male: I just say that I agree with that. I think the process measures are really what we should focus on because we know from the studies that these things make

a difference. And the other thing is, they should start to drilled down when you get down at physician level, on nurse home level, the innovatory surgical, the rates of disease are so small. You can't measure those outcomes at the level.

So these have to be done at state level, at public health level even at the health system level and to help insurance plan level, I think it would be, you know, so more challenging for some of these conditions. And for some of them, her disaster – we'd keep going back to that one and I'm not really not against that vaccine. I'm just for the thoughtful use of it. But with that it's not a reportable condition. So there's no formal mechanism for actually tracking it.

Male: In additionally for looking at outcomes, the specificity of your outcome measure is in additional complexity for many of these vaccines. You know, if you're looking at invasive pneumococcal disease, that's one order of magnitude. You're looking at pneumococcal meningitis, your looking pneumococcal sets which you're looking at pneumonia. You're clearly looking at (inaudible).

Jeffrey Duchin: And hi, this is Jeff again in Seattle. I think most of the outcomes for the vaccine preventable disease are not reportable conditions – influenza (inaudible) most notoriously, so on. So I mean, this is going to have to be some other measure.

Female: But, if you think about HPV, another, you know, tough there is the link of time that you'd have to, you know, your not going to cancer, you know, at 28. So I guess you might get 38 or 48, you know. So that's a difficult and sort of outcomes but in there is the intermediate things that are equally important which I think people don't ever think about like dysplasia and how many leaps he'd get.

And then, they you have so many leaps you can't get pregnant or you get pregnant you lose your baby. So I mean I think, you know, the tough part with some of those vaccines is, you know, sort of the links of time to get to the outcome but the outcome is important and I think that it's those outcomes, those scary things like cancer that, you know, patients and providers say

maybe I should be vaccinated. I think you can't lose the – it's difficult at it is, I only get – if you can take that piece off the table at least for things like HPV, you know, as I think that's true.

It is messy though. I mean, it's hard to, you know, how are you ever going to measure something like a number of women who, you know, have dysplasia and then go to colposcopic clinic, and that, you know, the cause of colposcopy and the cost of, you know, losing work because you know, losing work because no one has a biopsy and the fear of the biopsy, et cetera. I mean, you can think of, you know, many outcomes to the measure. It should be messy and hard and labor intensive is the other piece of the outcome measure.

Male: But I think there are a lots of measures that effectiveness of many vaccines. So I don't think we need to reinvent the wheel here. I mean because we gotten our study-centered, numerous studies of effectiveness of pertussis vaccines and flu vaccines. And we're doing one of zoster vaccine now. I mean, I don't think those aren't out there. And maybe they're not quantifiable in ways as providers and patients can understand or something but, you know, (Marshall) clinics doing all these stuff.

Every year they're doing a flu vaccine effectiveness and there's been so many flu vaccines effectiveness studies that, you know, what is your pack with them. HPV, your right there's long-term outcomes but there's a lots of studies showing how effective it is. I mean, that's been amazing vaccine compared to David's …

Female: But no one uses it.

Male: … but David is one that doesn't like it so.

Female: It's an effective vaccine …

Male: Right.

Female: … lots of studies, nobody is using it.

Male: You're right. That's – it is a spectacular vaccine. And there are lots of studies and there's a lot of refusal on the vaccines. And where there isn't refusal, there is a lot of forgetting to get the last. So it's – so …

Female: (Inaudible).

Female: Yes. Roger, question. If you had comparative data from different providers on the use of vaccine and you saw somebody who had significantly more level of HPV vaccination compared to their peers, how would you react to this? And should you want to know what they're doing?

Roger Baxter: Yes. So, we – there's a lot that's happening with providers and there's a lot about acceptance of vaccines from parents and children particularly around the HPV vaccine. That's very complicated. And we are trying to look at that a little bit with a patient-centered look at the provider-patient interaction so that the whole movement within our organization to try to take away the pain of the doctor trying to convince families to take vaccines and have some sort of an interaction that's helpful to both sides and maybe results in more vaccination or maybe not. But that's – there isn't that painful interactions.

So, yes, I would want an – we do measure – we measure that. We have advocates for – particularly for childhood vaccines. And in each medical center, they go and they have a list of what the rates are for each doc and they'll call them up personally and say, "How can you look so (crappy)?" And they – and I've talked to them and this is what happens. So – and you wouldn't even think it's intuitively exactly.

So, people who don't like vaccines are attracted to certain providers because something about them, they – these people, they want to give vaccines to everybody, but they don't hate people who don't take vaccines and they don't tell them to get lost and not come back to their practice and make them feel bad. So they tell their friends, "You know, I've got this doctor and he loves vaccines but he doesn't make me feel bad when I come in. You should see him." And they all go to this person or her and they're very – they attract, and they know they do, and they hate themselves for it because they always look awful and everyone complains about them.

But the advocates know that this people exist. The attractors who aren't – who mean well. So, it's more complicated than just not give – not offer – it certainly not offering the vaccines since they're offered, but to offer it in a way that's maybe less judgmental.

Female: I think that HPV is always fascinating and such a great vaccine and it's a little outside of what we're doing just because of the age of the routine recommendation, but I would argue that that's not a 100 percent the case because there are providers that have excellent rates of pertussis and meningococcal vaccinations and poor HPV rates for the same group. There's other things to measure.

But I want to just – if I could address a little. Just wanting to go back to the comments about accountability because I guess – and I might not totally understand how it's being used but I guess my question is, if we say it takes a village, but we also know a lot of the village is not necessarily interested or feeling responsible if you're vaccinating adults. If we remove accountability measures, we're saying everybody should be accountable, but no, nobody is accountable. So how do we – how would we move vaccinations in the absence of accountability measures.

Roger Baxter: I personally think, if you remove accountability from the measure, then you're going to gap your rates. I mean, I think you have to have accountability. It's just a matter of how do you get relative sharing of that accountability, so to speak. It's a 100 percent accountability for the provider involved, pharmacists, the primary care doctors or the oncologists, potentially yes.

Male: But if you have a public that's demanding vaccination, that's a whole different thing. So if you have a public that's out there saying "I want my kids vaccinated. I want to be vaccinated. I want to have every vaccine and everything I can have for preventive medicine." Well then, you have a different scene. I'm not sure, should we – and if the public doesn't want it, you know, I don't know where you go with it.

Female: But I think you can create measures like – I know the one I'm familiar with obviously, is the one that I managed which is the healthcare personnel

measure but it's got a combined numerator. So, you can measure separately that people get the vaccine or they actually contraindicated not to take the contraindicated or do they decline and I have the measure that you can use both for actual protection and accountability.

Roger Baxter: And I agree that the healthcare personnel are very distinct and they should be more accountable and we should be accountable for that whether they want it or not. I totally agree that that's one that should be strongly measure. I mean …

Megan Lindley: Right. But I think you can create that same kind of measure that has a separate category for declines and then if you have a physician that has a 60 percent vaccination rate, you don't say, "Oh, you're in so much trouble. You have a 60 percent rate because you can't see that they offered the vaccine to 98 percent of their patients." Maybe they have a population, like you said that isn't real big on vaccines.

Roger Baxter: And that's a great point Megan. And I've – have you ever seen like this like comparison rates between default donor for – like organ donor rates. I think if you're trying to incentivize the default behaviors and – or to encourage a default behavior, then certainly, accountability is the way to be good. But, I'd really like this idea of figuring out a way and I don't know how to do this but by creating some sort of – is there a way to design measures that incentivize patients to get vaccines and – that sort of bit beyond maybe to discover what we'd looking to do here. But I wonder if that's possible.

Female: I'd like to go ahead and comment and just say that I think that the days of leaving all the responsibility up to the patient is gone. You know, we used to say, "Well, I'm part of that older part as a nurse." That remembers the time when you told the patient what they should be at or how they should take care of things. And if they didn't do it, oh well, you know, we were like, "Well, we documented that we tried and that was it." But now, things are moving into the accountability. And the more I read, the more I know that the provider whether it's the PCP or any provider that's taking care of the patient has to make that effort to go ahead and advice the patient. If they've proven that the message coming from whoever the provider is, is very powerful.

So, if you give that, well, you could do this but it's up to you, the patient's going to probably say no. Whereas, if you say, "We really felt strongly that in order to take care of you, I feel that this is the best way to go." And then documenting that – the refusal, because I agree, when you start running the statistics and you find the patients who are not getting the vaccine, you're not really seeing that maybe they declined at that point in time. I think reminders are always necessary.

And I think that the reminder recall system works, you know, the immunization partnership because they had (invest) that and we have seen great results on patients who may have declined at the beginning. But when they have found that that the clinic, the provider, the personnel care, and that's what they get when you advice strongly and you have that compassion in your voice that it does work.

I also think that, you know, going ahead and saying we contacted you by phone, we reminded you on your visit, and maybe we sent you a letter or a text or however through the patient portal. You know, you can only do so much to – but it shows the accountability, you tried.

Male: I'm not against that kind of validity measures. The problem with it is that first, we need to know who is it accounting for. And when it comes to immunization, that's where the things fall apart as you can already hear it. It's been lot of assumptions over here but we're saying we're going to have for wider level measures. All patient may not be going to the provider for vaccination to begin with. We already know that. And as well as there's a big assumption that we are missing out a big chunk of population, the healthy population, that's not going to see these providers to begin with.

So, yes, you're going to be able – they are going to able to address – to a certain degree, you're going to be able to increase missing gaps where it comes to where folks are not getting the vaccination but you're never going to (pick out) because that's not a good thing the whole big chunk of the population. And you're not going to have already in (touching) discussion later on about what the patient should be taking charge or not. Or it should

that always be physicians who should be telling the patient which they or they should not. I mean it's a separate discussion. But I think, it's reaching a point where patient should be responsible for certain degree of care as well.

Male: So just to be – and also, you know, I think it's important also to recognize that there is a lot of – I think there is obviously the new and back standard out there about assessments, you know, that all providers need to assess. And I think that's something they were trying to really implement out there, not just physician providers, the pharmacy providers and so that – and down the (chain) nurse providers. So I think, I wonder if it's possible to measure, I think, for accountability versus measure missed opportunity. Because I think, you know, what we would, you know, and it should be possible with electronic health records going on the road.

You know, if you have an encounter with the patient and you failed to assess and offer, I think that's something we can try to measure. And I think that's an important measure because that's already been done for example in a 2008 study from Johnson with influenza where he documented in his study over the period of flu season, the 16 weeks flu season, over 300,000 missed opportunities from people who are chronically ill and indicated for influenza immunization came into a provider office just using claims data and we never offered flu vaccines.

So I think, if we can measure that and incentivize and leverage that, I think we can change some of that behavior. So to just say a little bit impression there is I think that some of these patients are presenting and provide offices, but the opportunities being missed and maybe where there was a way to assess that gap. And that's where the measurement – where the missed – the assessment being missed.

Male: (Inaudible) all the providers would be asking that question. So, essentially, it's the standards. So everyone, if from pharmacist to whatever so special which you're going to, everyone should ask whether you got vaccine or not.

Male: Right.

Male: And keeping in mind the eight minutes that you have with your patients.

Female: So absolutely, that's a new standard of – that's the new standard from NVAC which is all providers of care to adults should assess and strongly recommend any possible provider if you don't provide them before. And that's because of the fact that there was acknowledgment that there's a (breadth) of providers and that we need them all participating in the village.

And agree, you know, there's a – there's obviously restricted time frames and, you know, and we know the Medicare obviously now offers an Annual Wellness Visits. That's 16 minutes long and there's a lot of discussion. I do like what Joseph said about this. I didn't why – why just for Medicare patients like can't we do them for all patients that's (faithful) by the plans because it's in the, you know, an annual wellness visit for all adults where immunizations are assessed.

So I agree with all that, but that's beside – for me, it's a little bit (decide) to point because of the time frame. I think definitely, we have to work on in a system's level. But the measurement, what can we do to measure to improve performances while I'm thinking about it and I think if we can measure missed opportunities. You know, how many times a patient slip through the crack to the system. I think it's something that could help us change our behavior.

Male: But, I wanted to just (both hundred) points. So, I think that you're right that you can't take – each person can't take that time. There has to be something that reminds the provider that it's missing and without that. So without the information – and that information has to be available to people because you can't trust the patients, you don't – they'll say no, they'll say yes. You give them another shot. We've already been through this. We've been around the circle a couple of times.

So, everybody's accountable, but everybody has to have that information. And I think – so it's up to the insured, it's up to the, you know, the bigger groups to say this information is going to be available. So we can say with the performance measure. We can say that information maybe available or not and then they can make that informed decision. The (docs) have to make informed decisions too.

Male: And maybe one way to make it easier for the physicians is that you have a composite measure, right? So, rather than you're going through the whole checklist of 20 measures and unless I don't know if we're going to be discussing that later on so that, I mean, if we can discuss it at that point in time. I think we need to make it easier for clinician. That means it needs to be practical. I agree there are system level problems, but those are the realities that you have to deal with. And it's nothing but in short term. I don't think the system is changing in the long term. At least I'm not saying in next five years the system is going to change.

So we need to keep some of those practicalities still in mind in terms of, again, doing that eight minutes of it just not the immunization, right and we are on another committee, you know, all the other NQF endorsed measures. Now, if you start going through just that checklist, forget about even asking patient what they come for. You're just going to be doing that. So, I think some of those things that – I just have difficult time just thinking of it in something (training) on immunization by itself. We have to look at some other things that we are dealing within the environment as well.

Male: (Yes). And I think it sounds Doug's point. I think that physician doesn't have to be the person that's performing that assessment, (letting) that assessment as long as it occurs in the practice environment of the physician, he gets credit but – the idea of the assessment, the recommendation, direct – you know, that's what needs to be happened and it doesn't have to be the physician necessarily. But I think the system needs to be (involved) to deal with that. And I agree, I think, you know, the (immunization) is ridiculous and I think, you know, we need to figure a way around that as well.

Male: Could you – before we get off the point, I agree with that (LJ). The point about that patient refusal, I think – and the point that Megan made is, you know, they're too often – there is this conflation between not offered, not taking advantage of the opportunity in patient refusal and it's – you don't really have a measure to separate those two and all of this consistently, which I think would be very, very helpful. And the other problem which is sort of related to it is, you know, we talked about a number of examples, zoster or HPV until each has its own sort of valence of acceptability.

And, you know, we're talking – we're supposed to be thinking about gaps and I wonder if I said (long front) that there's a gap is that we don't have an index of acceptability for specific vaccines. You know, we don't – and I think that would be something that would be very useful to measure to look at, you know, how is HPV seen today in terms of proportion of refusal and how is that changing over time. And if it's the indexes below, well, maybe that's a prompt to focus on that and come up with new, you know, ways communicating about the vaccine and so forth.

So, you know, this would be something that would require some long term development, but I make it as a suggestion that some index or measure of vaccine acceptability might be a useful piece of information to providers particularly.

Female: So when is it?

Male: You know, if this (goes) out, that I think NVPO is actually looking at that to see their NVAC vaccine has (common) to working group that is there an indicator or something we can use to measure vaccine acceptability of enforcement to do vaccine itself.

Female: But in addition with the patient, I mean, there's also a provider aspects to vaccine acceptability and then accountability measures might assist with that because, you know, we've seen in provider offices that say, "Gosh, you know, your 12-year old really needs these protective vaccine. It's incredibly important. They really need meningococcal vaccines." The nurse (inaudible) vaccines and there are just few (inaudible) and so they don't get HPV.

So, you know, if you have a measure of system, because I do think we're having kind of a conversation of who should be accountable, or is everybody a 100 percent accountable. Part of that will drive a different conversation between the provider and the patient, not to say, "Oh, there's this other vaccine, whatever." The recommendation will be made at the same level and there are, you know, we all know there's a lot of study showing with a strong

provider recommendation can overcome (needs) in a very negative patient attitude in getting vaccination.

Male: I (got) sort of your point. And I will say that almost, well no, not every – but the vast majority of patient refusals on the front end, I'm able to, you know, during the visits, if I have time, overcome that in the end of getting vaccinated. And I agree with your point that they probably and the patient on the macro and the clinical setting that's where the responsibility lies. And, you know, with getting vaccinated, but, you know, how to make that happen. I mean, eight minutes is kind of a percentage that's been gracious. I mean, sometimes, we have even less that that.

And particularly, if they are diabetic, how many measures do we have there that we need to come over and, you know, the standing order thing, you know, I tried that. I've tried every single way I could think of and if that's standing orders for every vaccine. But finding a nursing personnel that are capable of carrying out those orders consistently at every visit, be they an LPN or a medical assistant, or whatever seems to be a real challenge because I'm reeducating my nurse that happens to be an LPN all throughout the day.

You know, we ask about these immunizations. They're prompted on the EMR and why aren't you getting them? You have standards orders to give them, you know, why aren't we drawing a map or if we don't have the vaccine, recommended that they be, you know, obtain it at the pharmacy. And it's interesting to go on EMR and I don't know what other people experienced. The vaccines are all age driven, they're not disease driven, (knowing) that's a lot of vaccine opportunity there with the prompt.

Pneumococcal vaccine doesn't show up on a diabetic until they turn 65. So – and then the different layers where you could document that in the EMR may or may not even be (minimal) data for the registries to get. So it's – the more we talked about it, it's a more concern that I get, actually.

Male: It could turn a little more confounding. So there are codes for vaccines as usual. And some of our providers use those codes. But I can tell you that patients resist that quite a bit because they become labeled and patients don't

like to be labeled because when they go to see another provider, some will say, "Oh, I see your doctor says you're a vaccine refuser." And they usually not refusers, they just have this idea of Dr. (Brahms') this and that, you know, they got these ideas of how vaccine should be given that are different than the docs think they should be.

So that actually has been a real problem with measuring that. So I don't know how good those clothes are and I think making points are very interesting thing about the HPV vaccine that although other vaccines the docs are pushing hard, I think there are a lot of studies that show that the doctors are not pushing HPV and its concerns of safety for they don't – they're not sure that the vaccine is safe.

There's a lot of say that showed that it's very, very safe but some reason, they think there's a safety concern about it. So I think identifying things like – that's an actual identifying a gap. Let's just say, "Wow. We have found this weird little thing and we should focus on that." I was going to say we can probably come back to this conversation but we're reminded that we still have a break for public comment.

Reva Winkler: Operator, is there anybody on the line that wants to make a comment, you know, who might be listing in?

Operator: OK. To make a comment at this time, please press star and then number on your telephone keypad.

(Off-mike)

Reva Winkler: Anybody in the room who wants to make a comment? It hasn't been commenting all along.

Operator: There are no public comments from the phone line.

Reva Winkler: OK, thanks very much. OK. Well, what a great two and a half hours but break for lunch. Lunch is set up over there. Feel free and we're due to recon reconvene at 1:00.

Male: Reva, I have a question. From what we're hearing on this table and from what Joseph had just said, it sounds like what gets measured doesn't always get done in immunization.

Reva Winkler: Sounds like it.

Male: OK. I was going to electronically gavel us back in.

(Off-mike)

Male: So we're ready to reconvene?

Male: Yes. The answer is yes.

Male: So, OK. Yes.

Female: (Inaudible).

Male: So we have some comments that came to us electronically.

Male: So we have some comments from Eddy Bresnitz. So I don't know if you hear us but we can hear you of course. So I can say whatever, I'll just blame it all on you. This is some comment from the discussion from this morning from Eddy. What's also missing from this is the pharmacy where so many vaccines are now being given.

Sam is not here. He would like to hear this one – these comments. Pharmacies often don't info back to providers which through in pharmacies are usually not in network providers. And then he also say so I don't believe that more clinicians know how to assess frailty and then make a judgment on whether or not they will respond to any vaccine. One cannot predict and with any degree of certainty who will not respond.

Also many people get vaccinated in pharmacies, are we expecting pharmacist to judge whether people are frail but – what criteria do they use. And this would be yet another barrier to vaccination especially in the older population. How would frailty be incorporated into quality measure as the reason for not

vaccinating someone who is eligible for ACIP recommendation? It would not be a contraindications.

Reva Winkler: Eddy said that (he's) traveling international so he's sort of electronically submitting comments as he's listening then so – I don't know exactly where but somewhere. But he's participating, so we want to be sure his comments were included.

(Off-mike)

Male: There are couple of things that I want to just start off this section of the conversation because there are few terms that I feel like getting used a little bit loosely. And I want to make sure that we're all on the same page when we're using them. One is system. I would like to hear from some you – make sure we all understand when we're talking about – well, this is system level problem, what is the system?

Which system are we referring to because I think we all may not be on the same page when it comes to system? And the second one is the provider because that's a very, very broad term because first one to get blamed for this why sometimes use physician provider interchangeably and some kind of bring in clinicians. And there was – that doesn't have to be the case.

So the provider and the system, I think it's important they're all on the same page regarding that. Any one add anything?

Male: I think that's it. I think for the providers specifically, I think that will make the potential denominators in need for the analysis.

Male: Anyone wants to take a stab at the system and provider.

Litjen Tan: I'll take a stab at provider since we were talking about this earlier. I had been using provider very loosely to use to any immunizer. So pharmacist is a provider for me in this context, physician is provider for me in the context. The designated medical assistant would be a provider as well. I mean so very broadly. I think someone have used the word immunizer.

Female: LJ, are you talking about individuals?

Litjen Tan: Yes. So that's – that, you know what, that made me think yes. Yes.

Male: It gets kind of sticky though …

Litjen Tan: Yes.

Male: … as in statutes, sometimes provider means hospital, right …

Litjen Tan: Yes. Yes.

Male: … or health system or …

Litjen Tan: (Inaudible) in my context, the provider is someone that we can leverage to give the vaccine or can do the vaccination. That's what I would think. Then, we can measure because it (could do our hospitals good).

(Off-mike)

Litjen Tan: Yes.

Male: I was going to say long-term care. I would consider hospitals and home health agencies, ambulatory surgical centers, dialysis centers, and what did I miss?

Male: Well, there is a home health nurses too, the ones going to homes and vaccinate. And we also have to think about it in many settings. It's going to be a team of people, you know, it's not going to be just me, but it will be me, my nurse, the front desk person that they're assessing, you know, maybe a medical assistant maybe we'll use a – what we've done during seasons is we've actually had a pod – a vaccination pod that we refer to for multiple clinics.

And so, I don't like the legal factor but you almost have to had to have some when you think about vaccine providers.

Male: And then keeping in mind, then of course, we were talking about this morning that accountable measures right? Now, you have pretty much every one who's

the provider. And so, everyone is accountable? And then get a little bit tricky, right?

Male: Well, I guess when I think about this – the issue of immunization accountability, I would lower at a feet of the physician or the head of the medical team that all of the team is accountable for the results. Now, when I think about our patients centered medical homes, we report out results by individual physicians but we also provide those results by team.

And so, within our PCMH, we have three teams at each of our two sides. And so, you get team based results, you also get physician based results. And sometimes, that gives you more granularity, other times it points out the exceptions that are not things you would expect and they should be.

Male: So pharmacist should not be accountable?

Male: We have pharmacists as part of our teams. What part of the team?

Male: I think of providers as being people and systems as being non people. And so, for me a hospital is not a provider. It is part of the system but it's not a provider. I think of all the humans, I don't think I guess it could be animals too but I think of the humans is being all of them who interface with the patient or member or some of the health aid as been providers.

And then, anything beyond that, a system could be a system of immunization tracking system, it could be an insurance system, it could be a hospital where people are working together, it could be, you know, any kind of collaboration beyond the individual human. That just my own – that's just a personal …

Female: (Right).

Male: Providing information to providers and systems will probably increase immunization rates and itself, even if don't hold them accountable just to be aware that what the rates are. I think people care about their members and patients. And they want to have them. And if they know they're not being vaccinated, they want a vaccine even if we don't, you know, someone was

talking about sticks, I don't think you should call them sticks, maybe jobs or post, right?

Male: So if everyone comfortable with going forward with something that Roger proposed all humans will – so when we're – because later on, the conversation is going to help it. And so, all the humans are going to reconsider the provider part and non humans are the system that were people – not people but system.

Male: I think I heard a slight subtle distinction which is the distinction between a population and a health care organization. And so, I think we probably need to keep difference this way.

Female: Yes, just join a comment on our initial work that we did. We separated things into population which is defined by geography and provider which is the patients are defined by service provision to the patient. In other word, some interaction and product health care delivery system.

I think your system and provider has separated that group again which is fine because again you're – it requires the patient to interact with the system or they needed the system or the provider, people or non people in order to be captured where perhaps not so much if you're talking about the population with space or a community or county or something like that.

Male: Hi. Just so I could be clear. The reason they separated the people providers from the institution, what's the benefit?

Female: Well, I would say, you know, action ability. I guess I would have a separate level from the system which is non people facility or organization and those non people together make up a system but if you ever practice that comprises five providers and is doing very poorly, you know, very know anything about where your quality problem is unless you have an individual measure for each those providers. So that would be one reason.

Male: OK. So I'm just thinking like in terms of the hospitals, we do hold hospital accountable for their rates, for the health care worker vaccination rates, as an example. So there is accountability. So it's not the accountability component so much that separates them, it's a often be accountable for certain measures.

Female: We are essentially – you're asking about a level of analysis for the how you would report results on a measure. You could report it by individual provider, you could report it by a facility. The same measure, you could report it, you could aggregate up into even more of a system of a health plan or even more of a system or health plan or something like that. So are you're asking more about sort of the level of analysis perhaps that the measure results.

Male: Yes, I'm just trying to figure out what the benefit is separating all (inaudible) out. I still think of them all as providers.

Female: I think that also that's the action ability. The systems often affect the providers and know, it will affect the kind of EHR have, the kind of prompts they get, the kind of policy in future, you know, do they have the protocol standing order. So it might – depending what system you're in, it could really affect the individual provider's immunization rate.

Male: Certainly that's true. I think as an individual, but those are kind of the same concept or what happens as on individual providing clinician, we all have the things that influence our immunization rates whether I'm individual, individual provider, or a group of individual providers, or a structured institution of providers.

Female: I think we're trying to understand the conversation from this morning where people were talking about the need for measurement occur to system level because of all the influences that very (drastic) system. We're trying to different – trying to define what do you mean by that system within, you know, the whole context as what, you know, we're trying to make sure we have a common understanding when we say that what were – what …

Ernest Moy: If I see a hospital with the system provider and that is just a group of individuals and the other facility holds that's depending with that (inaudible) because if there's (whole) and by analogy I think in a practice, you would call the entire practice accountable more easily than individual physicians who may or may not feel like if they're about (inaudible).

Roger Baxter: So, Ernie, is the VA a system or are they a provider?

Ernest Moy: So again, actually I like Roger (inaudible). It's the simplest we have, you know, you have the doctor working inside the hospital. And so, the organization would be the hospital. And then, the VA is in a higher level association of the – on the system at health care (inaudible).

Female: Yes.

Female: But I'm starting to come around to what Dave was saying which is actually the people is too low. I mean the individual facility or organization is the provider and the system is all the (babble) and I don't actually know that we can create system level measures because we know that all the (babbles) don't talk right now, but maybe the provider level is one higher than others previously thinking about it.

Male: Well there's groups of providers too which is still people and you can measure performance of groups of providers. Well I think, you know, you can slice and dice this anyway you want but – and there isn't any perfect way of looking at it, well I don't think.

Male: I still come back to thinking about providers provider their teams consistent is almost, you almost need to have those three levels to think about actionable steps.

Female: Perhaps at this point, we don't need to be that granular but that some measures maybe more appropriate at those different levels Douglas' describing. But I guess I'm curious because Sam, you and LJ were particularly talking about systems this morning and I'm going to put you on the front and ask you, what were you thinking about when you said the word systems?

Male: It's a great question and I don't know how long we should spend going around this. I don't – not to say it's rather whole necessary but, you know, because it important but what – at least as far as statutes concerned, the only question I've seen have really granular definition is on the word practitioner and that means a human.

But provider often means – groups of provider – is there – it can be even be …

(Off-mike)

Male: Right. Right. Exactly. So but the same system level I suppose it's – I mean like either like a larger scale accountable health care organization or maybe something smaller in between but we'll definitely talking about larger structures, macro level thing. So …

Female: And I think (inaudible).

Male: …. I don't know that you can define …

Male: (Many) sort of reason that comes up in my (inaudible) because I think that's when – that's where the action really has – that's where the leverage is. I mean if you're going to change the way we practice immunizations in adult, I think that's the leverage point that …

Male: Is Roger's definition that's a – that's the easiest one for all – for now it's we're all on the same page for the next few days.

Female: Are there – Eddy Bresnitz have a comment he wanted to make.

Female: As we refer back what has already been already defined …

Amir Qaseem: Interpret Eddy. Please correct me, Eddy, (after run in the sky). You're saying actually refer back to an existing definition that NVAC has already done or ACIP has already done?

Male: The oracle says yes, so …

Female: Well, in general, consistency of definition does serve as all, et cetera, and …

Male: Yes, make them, you know, the tweet is sort of logic but I like it, you know, let's stay with consistency.

Reva Winkler: OK. And probably don't – we don't have it off on the top of my head on what that is. So we can certainly search that out so we can come up with.

All right. You all did a very nice job of preliminary work in prioritization. And now, it's time to talk about how that all came out. We've given you – I think we gave you some of the prelim but we really want to hear your reaction to this.

Now, let me just explain that the way to these questions were organized with around the work plan that we had given to us and worked out as part of our contracts at HHS. So that's the – why was it broken down the way it was. That's the reason. OK. But that doesn't mean that it has to totally drive everything we do going forward.

So as we look at this – essentially when I look at your reaction in whether you after play the good session continue to hold these as priorities or not. So let's take a look at the first one. OK.

So we asked about a very general broad question about adult vaccines for which there are no NQF endorsed measures. And your options were based on, you know, essentially our knowledge of what the NQF endorse or not.

So if it wasn't there as an option then, you know, it's because you already have an NQF endorse measure. So we – you also think I have this in hard copy with the comments that some of you and the, yes, you say you can get a little bit further detailed information.

So here's the responses on that question. What's everybody think? This pretty much reflect would you think a, you know, a priority areas?

Male: I just want to go on record saying I did vote for zoster on this one so …

Reva Winkler: I don't think we should think (inaudible). OK. So clearly, there was a support for need for measures for zoster and for Td/Tdap, varicellum – they don't look like it, catch-up – not so much as a priority, and then other gaps things that I think come up in later question. So I don't think there's anything new to add.

So and our sort of early list of priorities, is everybody comfortable with including measures for zoster and measures for Td/Tdap?

Roger Baxter: So does this mean that we will drop, we won't even – we'll just won't bother worrying varicella and we won't worry about HPV even that we've seen huge gaps in HPV but we let the adolescent docs deal with that mostly or …

Reva Winkler: Well, Roger, remember we're trying to prioritize. So yes.

Roger Baxter: No. I'm only asking is a very open – I'm not …

Reva Winkler: So that's what we're asking you is tell us what you're priorities are.

Roger Baxter: And that, I mean that sounds totally reasonable to me. We should focus on the things that, you know, during lunch time, everyone agreed that we consolidation – there's so many measures already. We all felt like, "Oh my God, we're going to add to the list." So we were really interest to do that.

And because of that, I think this is a good idea just to focus on a couple of important vaccine, zoster, and I think mostly Tdap. I don't think people felt like Td was a big issue. We haven't seen a lot of tetanus cases lately compared to pertussis.

Male: Reva, I wasn't really clear on this question. So you were asking that in terms of priority that we're recommending that NQF should have more endorsed measures under they don't have measures, or you wanted that to sub categorize that we have already assumed that we need to go that route and out of that, we can all select the zoster and Tdap as what we should take on. Is it the top – the first question and are we getting into which measures that they should be doing?

Female: Right.

Reva Winkler: The goal for this is to look in areas where there are no existing measures. And so those were the options we gave you to select among them. And so, we are, you know, this is sort of a first path selection. We're going to have a list of

about 12. Here's another chance to hone that down a little bit once they would get them all together.

Male: So technically …

Male: Yes.

Male: … the recommendation can be at the committee is saying that we need to prioritize and develop measures that where there are no NQF endorsed measures. That can be the broad category which is one.

Reva Winkler: Well, that's actually the problem. And so, we need these specifics of what (they'll use are) …

Male: That they need to …

Reva Winkler: Yes.

Male: I was going to say the same – on reflection, I think, you know, the pediatricians, they're going to be responsible for what age 12 and 17 and then no one is going to be responsible for 18 to 26 – the larger part of the population that, you know, makes that (12.40) category for HPV (nation) and given these impact that it could do with, you know, why prevalent – I'm not sure that's why we should abandon …

Female: Yes, I think I don't remember how I voted but I absolutely in HPV out of the (grace periods were considered).

Male: I do have a quick ground and see if people would I think do this (inaudible) Tdap is …

Female: The question is, yes. I mean in addition so that there are three that come out or would you, instead of …

Male: We make a deal. We get to get rid of 27 and add three or that that regional …

Male: We have 60 or how many do we have – we have 65 for just blue.

Male: Yes.

Male: So if we could get – if you made a deal with those to get rid of three for everyone we added, we would or something like that.

Male: So how many that you want would like to have HPV in business? OK. How many would like to have Tdap? How many would like to have both HPV and Tdap?

Male: You know what, the chance of HPV is that this is adult. So we're talking 19 to 26 and it's specifically to catch-up the adolescent population that has not been immunized. I think that's the reason why I didn't vote for HPV. I don't disagree that is more in vaccine.

Jeffrey Duchin: Hi, this is Jeff. And also just throw my audible vote in. I also don't see HPV as a primary intervention to adult. This is a childhood vaccine and it's recommended for adults for catch-up only and increasingly that will become less necessary as our childhood vaccine program becomes more successful. So I didn't see this is an appropriate area for priority purpose for adult immunization.

Laura Riley: So, Jeff, this is Laura. I mean I wish could believe that that was actually going to believe that that was actually going to happen. So maybe we're talking about in a short-term for at least to be at six because in a short-term, there's a whole lot of 18, 19, and 20 year old who are not getting the benefits of this vaccine. And maybe in eight years when we change, reframe the arguments around HPV, we may have children vaccinated but that is not what I'm seeing in the near future.

Jeffrey Duchin: We've done …

Laura Riley: Well, I think that I catch-up – when I read it, at first (I was a little), "Catch up? This doesn't really make much sense. Why would you spend your money on catch-up?" But if you think about it, there's a whole huge population of young woman and men who was not going to have the benefit of the vaccine unless we do the catch-up.

Male: We've done such a lousy job on HPV today. I mean even if you look a the rates of the single dose, we've done such a lousy job. I think that it's – the opportunity is so great that I think it is critical that being putted …

Male: OK. I change my vote. I want three of them.

Male: … from the father of two teenage sons that have had it.

Male: Two teenage daughters. And I had a pediatrician who told my 13 year old who got her HPV was being the flu season that she didn't want to give her HPV but I insisted.

Male: Give me the name, I'll talk to him.

Reva Winkler: This is our most sort of general question. We're going to hone down if you recall the questions into subgroups. Then perhaps as we go through that, that would make help but certainly it sounds like there's a lot of support for raising HPV up at least on the level with the Tdap and zoster. Is that a fair statement?

OK. Let's see what the next one show us. So this is – we're breaking down an age groups. So these age groups and these age groups by the way were those that were given test by HHS. So if you have any just, you know, when I discuss the at the age brackets, feel free. But here essentially was your priority for measures for this age group is – what's to be the Tdap. Yes. That seemed …

Male: No. It had such a …

Reva Winkler: … measured.

Male: Well, so I definitely agree that Tdap for pregnancy is extremely important. But when it comes to everybody else, you know, since it (wanes) rapidly and there's no recommendation for a second dose, should we make it that everybody gets their only one just before the outbreak that happens in their community once?

And never again – it's impossible for me to come up with a rational, not with a current ACIP recommendations. It's impossible for me to come up with a

rational way to really vaccinate once for people in 1959. If you do it now, then when they're pertussis epidemic comes, they're not going to be protected or they may or may not be.

Female: But if you don't measure it then they don't get vaccinated at all.

Male: Right. But if we give them a vaccine now there's no pertussis in their community and then in five years there is pertussis and the vaccine is worthless at that point and there's no recommendation of revaccinate them, what's the point? I mean, what's the benefit? Except that you spent a lot of money, measured all these people, told them their not doing a good job, made them all feed bad, you know. I don't know.

Female: But you don't know that there's an, you know, it might not be that five years until pertussis is in their community, it might be tomorrow or two weeks …

Male: No, you're right. It could be tomorrow. Absolutely.

Female: … it would important …

(Off-mike)

Male: But wouldn't – so maybe, I'm not trying to be – I'm not sure about this. But I'm thinking that in many communities, particularly if there's been a recent pertussis outbreak, you won't see another one for three to five years and if you vaccinate for instance right after one season then you'll miss the next one. So I'm just not sure that we know that right – since we don't have recurrent Tdap vaccination, I don't think you know the right timing for it. I think it's complicated and I don't feel comfortable that we know what the right thing to do is. That's all. I don't know.

The one challenge I think we have with pertussis is the issue that we don't know the burden of the disease because it's underreported, it's not tested for. It's just not. So we really don't know what the burden of this disease it. That's where I think the value of the vaccine is probably there but we just don't know because we don't have burden of disease.

Male: Precarious in the adult population too. That's the other challenge. But the reason I put Tdap was actually primarily for the pregnant population because I do think that's (a critical vaccine) and there are a lot of people who become pregnant. I mean, that's the …

Female: (Inaudible).

Female: Well, the reason I didn't put it then is because pregnancy was a separate question and I read through the questions first and maybe that's a way of interpreting it distantly. So I would have pulled it up for pregnancy but not for the general population.

And the other issue is is that even if they're going to become pregnant, it doesn't matter because the recommendation is immunize them during pregnancy. So even if they had it six months prior, their pregnancy, we're vaccinating them again because that's what the recommendation is.

Male: I think we do care about carriers in adults and in teens. That's why Tdap was originally formulated was to – because they are a population that's their (reservoir).

Female: So this is the age group perhaps where you may want to consider HPV again. And so, where – what are you thinking in terms of HPV and the Tdap knowing that there is a separate area for pregnancy if capture those specific Tdap? I think if Tdap were only important for pregnant women, it would only be recommended for pregnant women.

Female: I mean, my – it's easier to say and I remember what I voted for because I intended to vote along the lines of the ACIP recommendation in terms of this is what's currently recommended, so this is what and it should be measured …

Male: Right. Yes.

Female: … including measuring Tdap vaccination in pregnant women. But I mean there's a whole big chunk of the population that does require the protection even if they're not pregnant. I don't think Tdap should be restricted to pregnant women.

Male: And I agree with that totally. I think that also if we were to go against the ACIP recommendation, it would create a lot of confusion out there in the line. No, that doesn't mean that that should be the only reason we choose this for our own committee.

But there's been a lot of, you know, publicity about pertussis and its nationwide, you know, epidemic and giving it your baby and all that, it's been in commercials and a lots of things on it that I think that, you know, that's why I voted for it. I mean, you know, ACIP guidelines, the publicity. And I didn't think the other two really made as much here.

Male: I think, you know, as I said earlier, I think keeping things consistent with ACIP is very valuable. So the question I think is if you took pregnancy out which is now clearly addressed later on, do we, you know, do people feel that Tdap stands alone for (carriage) and now less than in adult and consistency with ACIP? And that – I would probably change my vote now actually. I think I would probably pick HPV, catch up with what's the burden of disease.

Female: I guess my question would be kind of as far as where the meaning is going, what are we going to end up with? Because obviously there's an ACIP recommendation for HPV catch-up, it's hugely important to get that done and I picked what I picked when they say, "You have a certain number." So I picked the routinely recommended ones because we're supposed to prioritize which isn't to say that all the recommendations aren't important.

But we're – how many – are we going to get to (win) or down past that because if we are then sure HPV catch up is important but will it make the top of the list over routinely recommended vaccine? Tomorrow afternoon, I don't know what I'd say then.

Reva Winkler: I mean that's exactly the challenge here because we could create a whole host of measures based on the ACIP. So I don't think I would use that because we don't want to recommend anything that's inconsistent with ACIP, but you would have 50 measures if you wanted to, you know, measure everything in the ACIP guidelines. So I don't know that that is your rationale for prioritizing certain things over others.

And this is a first path. And what we're going to have at the end of it is a list. And at the end of today, I'm going to ask you to pick even a fewer number out of the list to further prioritize it.

So, yes, you're starting to have to wait other things. Yes, it's recommended but what's going to – perhaps have the greatest impact, what is perhaps going to boost our overall vaccination rates? What perhaps is going to give us the biggest thing for our buck? And that's why iterations, the prioritization will take us to our final place. This is sort of the first path.

Male: Reva, can I ask a clarification question? So you just said that if we use ACIP schedule, we're going to end up with hundreds, and why is that? Why can't we have a simplified process where you have – because that's exactly what's happening with flu and that's where I get confused I think, please clarify why.

Reva Winkler: If you look at the schedule, there are lots of different subpopulations, there are lots of different vaccinations and you just, you know, multiply the table and you end up with a large number is all.

So you can create lots and lots of measures that would be consistent with ACIP. The question is you then have to prioritize that list and that's really essentially what we've been asking you to do.

Female: So at the end of the day, we're trying to be basically figure out what we value essentially which is also the same thing that, you know, so the patients are left doing what they value, how much risk they're willing to take, you know, at some extent you're looking at, you know, what's the outcome, what's the burden of disease.

Reva Winkler: Remember, we know where we're starting from with lots of measures for flu and pneumococcal and we're trying to identify measures that will help drive overall improvements in vaccination rates for adult. So the question is what are the tools, measures that are most likely to help us achieve those goals?

(Off-mike)

Reva Winkler: I think your population in provider are definitely – disparities are something I think applied across the board. So I don't see that as separate. And we definitely want to talk about disparities but …

Male: Right.

(Off-mike)

Male: I think Doug is saying that we're having trouble prioritizing and that would be a way to help us prioritize if there's a big disparity or there's a big gap somewhere.

(Off-mike)

Male: I would actually now say HPV.

Male: I would lean the same way as LJ. I think when I think about risk and benefit from intervention, I would probably shift my vote and see that (inaudible).

Jeffrey Duchin: This is Jeff. I agree that Tdap vaccination is unlikely to produce major population level benefits given the short jurisdiction that vaccine offers a new data showing that transmission is possible among vaccinated persons even with mild or asymptomatic disease. So if we have to choose one over the other I think catch-up vaccination for HPV is probably more meaningful.

Male: I agree with that too.

Female: Yes.

Male: Does that fit in with everything we've talked about this morning with the systems and there's places to identify these people and I mean be meaningful we would data of those three shots and those kind of things. I mean is that something we think we could actually make an impact on.

Reva Winkler: Well, if you have to measure it you'll figure out a way of getting the data. And sometimes you need a bit of a kick in the butt to make it happen.

Male: Reva, under (inaudible), if you look at it, it says Tdap already has three process measures. So why is it identified as a gap?

Reva Winkler: I think it's for the age.

Male: Oh, it's for their age group information, OK.

Reva Winkler: So is everybody beginning to feel – I'm getting a sense from around the room that you would kind of see if this age group that the HPV is the higher priority.

Male: So we're pulling pregnancy out right.

Reva Winkler: Yes.

Male: Because I think of pregnancy Tdap thing.

Reva Winkler: Yes. Pregnancy is coming. It's under special population.

Male: Do you want to ask people to raise hands because I'm sure if that's what I'm getting at …

Reva Winkler: All right, fine.

Male: Do you want to ask (inaudible)?

Reva Winkler: Yes. How many would put the priority for this age group with the HPV? One, two …

Male: Yes.

Reva Winkler: Four, five, eight, nine, 10, 12, 13.

(Crosstalk)

Reva Winkler: Yes. So we put the priority for the Tdap. One, two, three …

Female: Can we have abstain?

Reva Winkler: Sure.

Female: You told me we couldn't chose both after we started the vote.

Female: So I think I'm just, I'm not entirely convinced of the burden of disease for both of these measures and I think we do still have a whole lot of people specially in this certain age group of young adults that haven't been vaccinated with Tdap. And one suggestion I might make is, you know, instead of calling it Tdap, we say pertussis-containing vaccine. It might make it a more durable measure hopefully as the vaccine evolve and the recommendation evolve with, you know, more new data that we get.

Male: I mean that would be (inaudible) the second doses after the first, that would no longer be consistent with ACIP because ACIP is one pertussis dose.

Reva Winkler: I get the sense that HPV has kind of moved up from your preliminary. There is still some, you know, interest in the Tdap or pertussis-containing vaccine. So we can make note of that and maybe we'll just hold, we'll keep the pertussis on the list that we'll then further bring down as we move along through the different questions. Go to the next question (inaudible).

This is the 60 or 64 year old age group and here we certainly see a preference for zoster. What are your thoughts on this? Does this reflect where you think things should be?

Male: Yes.

Reva Winkler: Correct, right. Yes, well the question is would you want them to develop measures to fill the gap?

Male: Yes, that is a totally different question.

Reva Winkler: Yes, correct. And Jeff, did you have a question or comment?

Jeffrey Duchin: No, I'm just responding that that's where I think the priority should be if for that age group.

Reva Winkler: Does everyone pretty much feel comfortable with this one? OK.

Male: What is the question? I'm not …

Reva Winkler: Prioritizing development of measures for zoster vaccination for patient 60 to 64.

Male: No, I thought we were listening today, you said we shouldn't – we don't really, we don't have measure and we don't need them. All right, I admit it, no one should ever use it. No, no. Well, I mean the fact that we don't have a measure doesn't mean we should have a measure. Yes, I feel like we don't have a measure and that's great.

I'm OK with not, I mean maybe not everybody feels that way but I'm OK with not having a measure. How about you, Dave?

David Nace: I have to say I would be OK not having a measure. If we do have a measure this is the age group I think where it would probably make the most sense. But it would be good to know how many people are vaccinated. I mean if we at least have that, that's IIS, you know, that's information system stuff.

Reva Winkler: And the measure would tell you.

David Nace: That's true. I think we all feel strongly that the IIS is a priority and we would include that with every vaccine for everybody at every age in this group, particularly for adults.

Reva Winkler: So the question is, you know, Roger and Dave are sort of speaking against what your preliminary prioritization for additional measures for this age group to include zoster. How many want to jump on board with them? Or would you like to stay with your priority of zoster for this age group?

Litjen Tan: Dave, Can you just summarize why not, you know, and then you can jump in. I am so not really sure if I clearly understand the argument.

David Nace: OK so I think the issue with the zoster vaccine there several things. First of all, there's been the insurance coverage issue, you know, that's always been is it part D, is it part B, can physicians give it and pharmacist. That's – so, for this age group.

Litjen Tan: Yes, from this age group.

David Nace: Yes, right. It's probably on this one but that's for the vaccine overall across. The vaccine advocacy decreasing with age for five increments, this is the highest. So if you're going to do it, this is probably where you would want to do it because it has the highest efficacy at this particular age.

Litjen Tan: So you don't have any argument against this age group?

David Nace: So I don't have an argument on this one.

Litjen Tan: Roger, why are against this age group?

(Off-mike)

Roger Baxter: So first of all, it's not that I don't like the vaccine nor think that it works and I think that's a very helpful vaccine. But this particular vaccine doesn't prevent – well, it may prevent some mortality but very, very small amount. And I think that overall I'm not positive that it's a huge public benefit. So I think it's more of an individual benefit and I think that this is a vaccine that individuals should ask for on their own.

That's one of those things that if a person wants it, it's available to them but that on the whole should the government and the public health system be pushing this vaccine I'm not sure it's a really big public health benefit. But maybe I'm wrong.

David Nace: Well, I mean I think this is simply a measure of whether it's being delivered or not I think that maybe can be separated from the recommendation, you know, issues around the recommendation. Another thing I would say is, you know, I think mortality is really, you know, at the far end of the, you know, the burden of morbidity is, you know, with (inaudible) neuralgia and so forth is not insignificant and not always possible to predict.

I mean there are certain risk groups that it is possible but there are many who are not in that risk group who suffer. So I mean, you know, you talk to people

who had zoster, you know, it's not a good time. So, my point is really about mortality as being the main material.

Roger Baxter: All, right. But there's just something very different about this vaccine from other vaccine. So, pertussis is a transmissible disease, influenza is a transmissible disease. Most of our other vaccine preventable illnesses, when we vaccinate, we're trying to provide a broader benefit in the individual. This one, we're not. We're not trying to provide any benefit to the – well, I mean, really, to other people.

David Nace: Well, I think that's an important point but, I mean, certainly, it's an expensive vaccine. I mean, the consequent treatments are expensive. And I don't know that the fact that it's not transmissible is a sufficient reason not to measure this. Others may feel different.

Male: I don't either. I'm actually – you know, that's my first thought on it. I'm definitely open to changing my mind about it and I think I just see it as being more of an individual thing, but, you know, people – I wouldn't push out against it. People feel like it provided a broad public health benefit.

Megan Lindley: Well, when we say public health benefit and it may be not in terms of creating herd immunity, but if you consider that there was approximately a million cases of zoster a year and there's some outpatient treatment at the very minimum for most of them, it's a substantial hit to the healthcare system when we're trying to think about things from a system perspective, especially from – it might even be 50, but particularly a 60-year risk of zoster and your risk of PHN really starts spiking, and then they just go up from there and, you know, as they've said it, the age group where there's the great effect in advocacy, I think there are really strong arguments to measure it on this group. You know, there's no mortality per se.

Male: I would agree with Megan on this one. My – I don't know – when we're talking about the triple aim, really what we're talking about is value proposition, right? So, value equally, you know, and size, we appreciate value equals quality divided by cost. What does that quality actually mean? Well, I'd say it's both the overall come through patients and plus their perception of

their care, right, then the patient experience. So, I would (inaudible) that the one in six patients over 60 that actually get shingles would see some value into vaccine itself.

Jeffrey Duchin: Well, this is Jeff. You know, I agree that it's desirable when possible to have population-based benefits related to transmission of disease, but that's not a criteria that are used for many of the other important health issues for which the value measurable quality indicators, diabetes, hypertension, cardiovascular disease, asthma, now obesity, other chronic diseases.

You know, zoster causes a significant burden of illness among adults as they move past 60 years of age, primarily the postherpetic neuralgia. It's a severe debilitating disease associated with significant detriment and quality of life as well as healthcare cost and I think because it – and it is recommended for that reason, and I think it's meaningful to develop a measure that corresponds with that recommendation.

Male: And I think the morbidity is the big issue. The mortality, yes, I'm not clearly worried about that but it's …

(Crosstalk)

Male: So, how many are in favor to keep zoster here? How many against?

Male: Yes, in favor.

Female: OK. Reva, sorry, Eddy had one comment related to this. He said, we know what its measure gets done and uptake of zoster vaccine is incredibly low. We have HP 2020 target for which this is quite low. The benefits of the vaccine are well-known. Morbidity is quite significant with the disease, especially the older population. Then he says, I have a conflict on speaking further about this measure other than the point I've made.

Reva Winkler: So, we'll leave the zoster for this age group on our current list, it seems to me. Let's go to the next one. And this is age 65. Now, realizing pneumococcal isn't on here. Flu isn't on here because those measures already exist. So, the question is, again, we're seeing zoster pop up. I think it's your test – here too.

David Nace: You know, I think – and I actually think I did both for zoster and this as well. So, but it has to be – the key is it has – this has to be nuanced because it has to really take into account the life expectancy of the individual on frailty, and there are five different measures of frailty out there, not including functional status measures. And all of them, you know, (inaudible) is probably the simplest one, four-meter (inaudible), you know, less than 0.8 predicts mortality. I mean, and so there are very good measures for frailty. We need to know a little bit more.

But I think that that's the big issue that we have to have nuance and we might have to accept that exception based on the frailty components or the expected life remaining would have to be in precise measurement for the starting point. But at least, you know, by at least doing that, allowing the measure to go forward and having those exceptions, it allows us to take a look at the rate while the science catches up to tell us, "OK, this is how precise to the measure of frailty and all the rest of that." So, it starts us moving in the right direction.

Robert Hopkins: I would agree with Dave. I think that there needs to be – I think zoster is important in this age group, but I think there needs to be some subtlety rather than just a blanket measure of everybody 65 plus, and whether you do it based on frailty, whether you set, we're aiming for a rate below 90 percent, you know, set based on some other criteria or whether you do it based on up to a (cap) age, but I think that this is still the best target for this age group.

Male: And my admiration for Dave and Bob aside, I think that's a bear of a measure then. I mean, I don't know how you build that into a measure. I think that needs to be done at the implementation of the measure component. I mean, I just don't think you can build that in, and just realize that if we do build that into a measure, I think you're going to discourage performance from some of the other complementary providers that we're trying to get involved. In fact, the number one provider of zoster vaccination were now pharmacists, but I think it'd be good in the frailty component to measure, I think you're going to cut them out. I don't think you're going to do it.

So, I think those are things we need to consider as you go down this path. I would support a measure here that unfortunately, you know, contradicting you, Bob, is broader. And we need to figure out how to implement it.

Robert Hopkins: Well, what I might do is, again, I think frailty is very difficult to measure. I mean, I might, you know, a couple of different approaches I think would be attractive from my perspective. One would be, you set this as a measure for everybody 65 plus and you aim for a level of 75 or 80 percent. Or you might set your measure at age 65 to 80, you know, based on the trials.

But I think you can make it a measure that's doable without undue burden. But – and at the same time, not push people to vaccinate people that are not going to get benefit.

David Nace: I'm going to say that I think it's almost impossible to put an accountability measure to that though because I think, you know, there are people that do nothing but long-term care. So, and the average age of my population is 88. And, you know, I have really very – I have like three patients who are 65.

So, in that particular case, those individuals probably wouldn't be able to get to that level. So, I think the accountability then becomes a big challenge, and it is not operationable at that point.

Megan Lindley: Well, but would we – I mean, would this group have the nuance to say we highly recommend a measure in this age group because of this significant burden of disease, however, it's the opinion of these experts, this is not appropriate for accountability measurements.

I mean, I think there's a difference talking about the problems with the measure and the nuances that might make recommendation about in saying, well, there's so many problems (inaudible) conversation we just had. There's massive burden of disease that gets worse that you get older and the efficacy isn't completely plummeting off after 65 particularly for PHN, so.

Jeffrey Duchin: This is Jeff. I agree that this is important to measure and I also agree that the application of that measure has to be interpreted and applied in a contextual

basis to the greatest extent possible and it is going to vary depending on your patient population.

I also would like to just point out that it's probable the greatest bang for the buck from the use of this vaccine is in patients 70 and older if you believe, and we don't know this for certain yet, but if you believe it's got a short duration of action of about five years, the burden of postherpetic neuralgia prevented is greatest when this vaccine is given at age 70.

So, I don't think it's right to diminish the potential utility of this vaccine in elderly patients. On the other hand, there clearly will be patients for whom this and other vaccines will not be as effective as they are in the general patient population of that same age.

Reva Winkler: All right. So it sounds like in general we'll leave the zoster on the list for this group. Again, we do a next level of priority. We'll see more things end up. OK, let's go onto the next one.

Male: I want to make one comment. It seems to me that the only measure that we could really use in the – it would be age. I don't think it'd be possible to use for this kind of measure other things than age.

Male: I think it'd be possible to use something like per community dwelling elders? If it excludes the long-term care population that kind of (capture).

Male: You know I was thinking of that. The difficulty is there are people who are for family (frail) in the community too. So – especially as we try to have people "age in place." That becomes, you know, that becomes a huge challenge in terms of separating out for the …

Male: And we can't even capture that. So most of the wrong – so there's differences, there's assisted care, there's skilled nursing. And then there's long term custodial care. And the long term custodial care does not have any kind of thing attached to it, or flag or something in data. Most people who live in custodial care just live in boarding care, these little places in the community so they wouldn't – and the doctors don't even know what that means most of the time, right? So I'm not sure that that would be – we'd be able to do that.

Jeffrey Duchin: So, this is Jeff, you know the issue of decreased vaccine effectiveness in debilitated patient is not unique to zoster vaccine. Is the concern just that the cost of this vaccine is much higher than the others?

Roger Baxter: I think the – well, the cost is certainly an issue. But the other thing is the data showing the decreased effectiveness is really good for this vaccine. Whereas for like hepatitis B there's a decrease but they are limited studies, they have problems with them. This is the one vaccine that really there's good data showing the vaccine effectiveness goes down with age. We do – (inaudible) we're getting there as well, so.

Jeffrey Duchin: For influenza, there's great data for influenza vaccine that shows that it's poor in elderly patients. And I think in general, just based on science, immunization science, patients who don't have good immune system functions don't respond well with vaccine. So there's no reason to believe that this is unique.

Roger Baxter: Correct. Correct, and, you know, if you would also look though, so should we exclude individuals whoa re frail from pneumococcal and influenza. And the argument against that would be because while some of those people do respond it's a communicability in the ability to kill your roommate in long term care if you get the fluid because you pass it to them. So there's a huge public health, I mean that's why I think it's fairly clear for pneumococcal and influenza that we should this even despite the reduced immune function because this is really targeting an individual and not the communicability issue as much.

Jeffrey Duchin: Well, pneumococcal vaccine isn't – I mean pneumococcal disease is not highly transmissible. I mean they're very (inaudible) to reduce carriage. So I don't know, I'm just not sure about the argument around, you know, this being such a special case for zoster vaccine.

Roger Baxter: Yes, we have seen drug-resistant pneumococcal outbreaks in long-term care. In fact I just took care of one last year, (inaudible) state with that. So it does happen, so and it's under diagnosed because no one ever gets blood cultures in long term care.

Jeffrey Duchin: But this polysaccharide vaccine prevents that?

Roger Baxter: Good question.

David Nace: I sort of feel like this is an area where ACIP really can have a lead. I mean it seems to me that until there's a ceiling on the age, I think it's important to have a measure that's consistent with a recommendation which itself is evidence based. And we come back and say, if they have for a number of cancer screening, no there's an age beyond which this is not reasonable to do and readjust but so, I think I would vote for ACIP here.

Megan Lindley: I mean I think there's also little and this is not CDC just my personal perspective. But I think, you know, for vaccination of older adults, even the oldest adults there's kind of a feeling of half a loaf is better than none. I mean if flu vaccine isn't as good as it is for a young healthy adult but it's still better to have a 19 percent reduction in getting it than it is to be completely unprotected. And I think from that perspective you can make an approximately similar argument for flu and pneumococcal and zoster.

Jeffrey Duchin: That was my point, I'm just arguing for consistency in the approach across the different vaccines.

Female: Reva, Eddy Bresnitz had another comment. If we knew someone would fail, would anyone not vaccinate with Tdap if they were eligible? Without a real way of accounting for frailty in equality measure we should not be using the concept of frailty to prioritize the quality measure. We just stick to the age-based recommendation because it is most practical. The issue of frailty has not been applied to other vaccine.

Roger Baxter: I actually don't vaccinate with Tdap for frail people.

Reva Winkler: All right anything further on this group or move on to another topic?

Megan Lindley: I was just going to say one quick thing about when we go more into the details on this one that I really like about the idea of you know maybe we recommend a measure that has not just 65 plus but 65 to 69 and 70 because well, you

know, Dave's made a point very eloquently that doesn't necessarily proxy 100 percent for frailty. It's still a good way to look at it that has the ease for providers and measures of being age based rather frailty based.

Roger Baxter: I would agree with that.

Female: Someone mentioned when we are looking at the 60 to 64 age group that she was Medicare Part D picking up zoster vaccine for certain individuals. I (inaudible) consideration we could keep in mind that this might not be covered for everyone. And sometimes not covered very well at all where it'd be very (inaudible) to the patient.

Megan Lindley: I don't know the – I mean, you know, the – I think your point is really well taken but as the Affordable Care Act is implemented, you know, I wish there were more consistent standards for a Medicare Part D plans myself but I don't know that we can necessarily look at vaccine financing as we try to figure out what should be measured.

Roger Baxter: Yes, it seems like the measures drive the financing rather than (inaudible).

Female: I think that's a good point too that it might drive the financing. You know, as we're talking about accountability I just feel like maybe there's some providers, there's some systems that would be a group of patients that's not as well covered as other providers in the system so they might be punished so to speak because of the coverage their patients have.

Male: I mean – I don't – I think we're going to keep this. I don't think we're going to change this but this is an FYI. The Affordable Care Act did not really do a lot with Medicare, so Medicare is still Part B and Part D. And remember to get this into part D or to open it up because they're covered on the book equally with legislation. So it's a tough hurdle but I don't that's going to change. I think that's (inaudible).

Reva Winkler: No, it would be more about changes that part B plans might make (inaudible) because the other thing we have to remember is that it has to be an all part D plan. It doesn't have to be covered well but it does have to be in there.

All right, let's go to the next one and see something else. So composite measures are something that came up in our conversation before and they come up in a lot of places, composite measures aren't very popular. They certainly put together multiple bits of information. And they can be created in a variety of ways. So there is no one way to create a composite. So the definition of a composite essentially is an aggregation of component measures resulting in a single score.

So how you aggregate them and how you put them together, there are a lot of ways. So they're – when we ask this question, there were, you know, several possibilities and they were not meant to be the only one. So we were looking to see if anybody had any other alternatives or other suggestion. But one of the most common we saw in conversations with folks that we're looking at the composite realm. We talked to the folks at the Institute of Clinical Systems Improvement who has in them the clearinghouse, an up to date for all appropriate adult immunizations. It's an all or none measure.

They've had it onboard for quite a few years but they really don't know what the uptake of the measure is. So, you know, it's a great idea, everybody keeps it on board. Why – we don't really understand, you know, the problems with the uptake. But the concept is one that they feel very strongly about. Composite measure required vaccines for adults which may be sort of an aggregation of, you know, you measure your flu, you measure your pneumococcal, you measure your (inaudible) older folks whatever and somehow then combine those into a single score.

We talked to the folks at the Union Health Service and at the VA who are in – they have a study ongoing of creating composite measures for adult where they're looking at each of those and they're having – it's doable. The Union Health Service seems to have a handle on it because their electronic record has the data more discretely so they can find the data.

The VA despite having good EHR systems, they're probably paying the price for having got there sooner than everyone else because the data is not in discrete definable field, they tend to be in text field. So retrieving that data in a way that they can do the calculation is becoming a bit of a problem. So they

– but they're working on a composite and in talking with them, they just weren't calculating, creating a measure this way. They were looking across the entire population of the flu, the pneumococcal, the zoster and then adding them up somehow.

They didn't look at it from an individual patient level and ask, you know, do they get all three though they have the data and they can get go back and look at it. I mean there are different ways of putting composites together and that's sort of what we were asking and then again, composite measures combine with other preventive services. There was a bit of conversation this morning about that kind of a composite. We try and integrate immunization with other things rather than, you know, keeping it as its own separate entity and then, you know, you can do lots of different composites and you can have composite for special subpopulations, you know, diabetics, maybe a certain group, heart disease, pregnancies, you know, whatever.

So just your thoughts on composite but I guess it's interesting to see that what seem to rise to the top in your preliminary review is the composite for, you know, preventive – integrating immunization with other preventive care services followed second by the up to date for all age appropriate vaccine, sort of an all or none I'm thinking as a patient level, you know, how many patients are up to date kind of measure. So your thoughts and reactions to composite measures around immunization.

Male: So just a couple of things because I've had (inaudible) experience working with the composite measure for preventive services. One is (inaudible) to be used alone. So this is not, you know, this is weird, this is not by itself. So you – from the composite measure itself you can't really tell which component but you have the individual measures, so I think that's an important piece.

The other a couple other things, one is that I think, you know, we often think about composite measures being very patient or person centered because even though with providers, we often think in sort of this (inaudible) categories of cancer screening and immunizations and so forth for recommendations or all servicing person and usually the one that we develop which is now part of Healthy People 2020, clearly there's a different (inaudible) components for

men and women and then we develop a similar measure for – So the one that's in there now is for 65 and over but we have a different one for those 50 to 64.

I think the general idea is that it should, you know, we talk about leverage but it should raise the bar for performance because you don't get to check the box where you've had all of them but then you clearly also need the ability to dig and figure out where the problems are which – and that's why organizing it this way in which we have very specific components is a great way to do it as compared to if there are four services recommended for a particular age category which what represented in focus who've gotten one service, two, three or four. If you do it that way, you're mixing and matching different components which is most helpful.

Male: I personally like the idea of a composite measure that hits a lot of things but I think that's absolutely critical if you're going to do a composite that you start off with harmonization. I guess the way that we discuss this at large is I would say go back to Dave's Venn diagram.

The central part of the Venn diagram would be the standard preventive services recommendation for a person at that age with ACIP recommendations there and then the pieces that map off of that would be chronic diseases like diabetes or cancer or others and have each of these parts of the composite will be mappable to those disease entities as well as to an age-based composite.

(Off-mike)

Male: I think that's – thanks Robert, I think that's were those what to say is I think that I don't we can have just a one composite measure for let's say preventive services because I think we need to be able to capture the special calculation and the question then is you know and I think we need to hit this most of the time anyway. I mean in order to make sure that people who need to get a full (inaudible) we need to measure people with diabetes in their measurement.

Adult vaccines recommended for them should be in there and then it should be also something that's screened under the preventive services I mean, so I think that's fully the best way to catch the well population, the chronically ill population and make sure that we get them all.

And I like Bob's idea of this center sphere and then the circles. That works as well.

Female: I like this idea of the composite measure where the immunizations are linked to these other general preventive services because I think it has the potential to broaden responsibility for adult immunizations into the medical expertise and the nurse practitioners and all the other people that might be involved in patient care because that's these other general preventive services like the routine blood check or blood pressure check and urine dipstick and things like that are usually done at a pre-clinical event or before a doctor has even arrived in the office in the morning and so, I think that the more you potentially link adult immunizations to those sort of preclinical evaluation the more likely that you're going to get these things done.

So it's kind of measure things (inaudible) for having these other (inaudible) involved. Maybe that's why that's a (inaudible).

Roger Baxter: Yes, not only to drive multiple services but it actually from the point of view and it drives them simultaneously so often you get occasions where you get a bundle of services at once and that we did a project in the community where we enable people at community flu shot clinics to sign up for mammography appointments and it actually turned out that rather than just having sort of an outreach around breast cancer screening which this sort of a flashing red light (inaudible) people's anxiety that when you bundle it together, the conversation actually becomes much easier.

It's one component in a kind of wellness thing which is, you know, much more easily digestible and, you know, you could imagine it's looking the other way for folks who are a little bit vaccine phobic that in the context of other wellness intervention the vaccine may be a little bit more (inaudible).

Female: Just so you know, I think I'd missed what you were saying before about the composite measure like if someone didn't do well on the measures then you don't know whether they didn't do well because the patient didn't have the mammogram or the patient gets a vaccine. Is that a problem or that …

Roger Baxter: I made two points around that and thank you for asking. So if you just have an all or none measure without the component measures and let's say you're looking at an up-to-date measure for a patient panel or for a physician and the up to date on core preventive services is, say, I don't know, 35 percent. You don't know if it's 35 percent because it's just flu shots that are not being given or it's just colorectal cancer that's not being given because they're all – you can't check the box that you're up to date until you've gotten all of them. So you don't know if there's – so that's one issue. You don't which one but the other thing is you don't know how many on this thing.

So are they up to date if there are four recommended measures because they've got none of the measures or they're gotten three of the four measures. Either case, they're not up to date. So that's why the further analysis or was important with the composite measure.

Reva Winkler: Just as a comment and this is a conversation around composite measures regardless of the topic area that we hear is that yes, the composite result is an end result but the collection of the data and the feedback is the data such that you can drill down into the components is equally important to be able to make it actionable so the two, it's not an either-or, it's simply a matter of understanding when you're doing a composite measure, you need that fullness of your data and not just to final review check box, the final result.

Male: I'm totally in agreement of that. Is there a risk in doing composite measure where you bundle adult immunizations (inaudible) services that there'd be in bundling in terms of payment as well? Our providers can be compensated less if we have measurements that bundle, I mean I don't know I'm asking.

Female: You know, in the more than 10 years I've been measurement I'm not aware of measurement driving that in that way. I do know that there are times when the way the payment systems exist put limits on what you can measure. But I haven't heard of any, does anybody else – I really have not heard one.

Interesting question to explore but my guess is that that isn't the primary driver for the payment system.

Female: One thing what I was thinking that's another kind of side effects would be either bundling or immunization measures with other prevention measures, particularly for the special population is go to the point that Amir made this morning. I mean the index standard should be every provider, every visit, every vaccine but it might sound a little less ridiculous to say you've eight minutes to prevent your patients from dying of congestive heart failure instead of doing this assessment of 10, 12 adult vaccines, however much is on the schedule, just make sure you talk about flu vaccine.

It might be kind of a way to gradually introduce the idea of vaccination accountability or just a feeling of responsibility to specialists, providers, who don't necessary see that at their real house right now. And I guess just an off point, I'm not a big fan of the idea of an immunization only compensative at this point just because I think the zoster and Tdap coverage is so low that you're just going to end up a with really, really low composite measure that represents that little coverage and doesn't necessarily tell you more than individual component measures.

Male: I totally agree with that. I think that's one of the reasons why – I don't like the up to date as (inaudible) especially. And I think that's the reason why the uptake of the element is so poor because there are a lot of providers who think I'm not going to give this or why should I even want to be measured (inaudible).

Male: I think this (inaudible) kind of composite is very, very useful. I just wanted to point out one of the methodological issues that we've encountered is doing (inaudible) complete information so if that's missing for any (inaudible).

Female: Eddy Bresnitz shares that the problem with composite corporate prevention and vaccine is that vaccines will always be at the bottom of the list of preventable services. Just look at the current vaccination rates for pneumococcal vaccine and high-risk population where it is a standalone on measure.

Reva Winkler: It seems like we've got a pretty decent consensus around composite including immunization with preventive services.

Male: What was that?

Reva Winkler: What?

Male: The consensus?

Reva Winkler: Well everybody nodding their head.

Male: Yes.

Male: No, I mean did we decide that we didn't like composite measures or we do.

Reva Winkler: We do.

Male: We do, OK because that …

(Off-mike)

Male: OK, OK not immunization only.

Male: This is going to be combined with the prevented services.

Reva Winkler: Is your preference.

Male: Even though it's going to be relatively meaningless because it will – he vaccinations will bring it down.

Reva Winkler: Well, I was saying is that, you know, right now we or in my opinion if we don't we should have individual process measures for each of the adult vaccine. But unlike children where you have incredible high coverage generally and then when you composite them all together and for three one and three, three one three how many weeks and that now.

You'll get a lower number but you're still, you know, people are seeing some value in that combined measurements. Here the individual coverage for zoster and Tdap is so low that I personally at least don't see the value of combining all the immunizations together because then you're just measuring the low coverage in those areas whereas with these preventive services it wouldn't necessary include all of the adult vaccine.

But it would include some that are selected in someway for specific populations that are specifically recommended for that subgroup is the way I'm thinking about it anyway.

Make: Exactly for that reason, for example, that Tdap not included in the up-to-date measure for persons 55 or older, that's in Healthy People 2020. For men it's colorectal cancer screening, flu shots and pneumococcal shots and that's it. And for women it's those three plus mammography. And for the 65 year olds and over, the up to date rate using the RFSS so these are national rates for about 50 percent.

And for the 50 to 64 which doesn't include pneumococcal but does include for women cervical cancer screening the up to date rates are in the high 30 percent. So if we'd, you know make it quite, if we put in Tdap it would be all been about five percent.

Male: I think you're right. I think you can start up really low. The point is you're going to – don't you think that if you have a composite measure that includes preventive measures and all immunization, eventually, when you're going to see that you're 5 percent, you're going to look into what's going on and you're going to raise it?

Male: I'm not too good at seeing the future actually.

Male: That's the whole point of these measures, right? Otherwise, why do we even have them?

Male: I was trying to think about it so, you know, so we have colon cancer screening. We have Tdap, just take the two of them thrown together. So we have colon cancer screening and they look really good and we're throwing pertussis and they look really bad in those both. So then because they look really bad they want to look good so then they would bring them both up together.

But this should be in addition to all the other measures that they already have, right? I'm not – OK.

Male: Well, at least my hope is I don't know and you can speak to this one is that I'm hoping that one day we have more composite measures and less of those individual measures. That's the direction we need to go.

(Off-mike)

Female: And if you would like to make that recommendation in addition to your priorities we can certainly include it.

Male: OK.

Male: I mean harmonization and composite measures of the recommendation we show, it goes back to Bob. When we were talking at lunch 65 measures is just crazy, so we need to start making those recommendation that harmonization of composite measure is direction we need to go, step one.

Male: So yes I guess my thinking was this would be just additive thing each time we do another measure whether it's composite or not. But it's just adding them on and I think I got a little confused with the way the questions we're asked, you know, what was the gap, what if there's not enough of it. I sort of felt it was a little horror (vacui), you know. Well, there's no measure so we got to make some measures for it.

So that's – I think I got a little caught up in that. I was worried that we would just be adding and not changing.

Megan Lindley: Well and I think, you know, to the question about kind of what's the value like the one thing that I like particularly and this is looking at the special population. Because generally maybe the groups that really need colorectal cancer, we don't think Tdap is important. I mean it is recommended, it's a good idea but how well is this going to work, what's the burden of disease.

But if we're to make composite measure for, you know, prenatal services it would be hugely important to have that in, you know, so it's not every adult vaccine composite with every other preventive service. But trying to say yes, specific vaccines that are high priority and if, you know, it's always a problem

I have thinking about it is the difference between what's important to measure now and what's important to have done and the fact that those aren't the same thing even if we don't have to measure Tdap vaccine it doesn't mean it's not really important, it's just not going to fit in here.

Male: I'm listening, I'm not sure. This is, you know, it's kind of taken into slightly new realm to talk about the composites for me. I've been able to really concretely see how measure for one specific thing could be used and then I've been just trying to see how this composite thing would work. And I see how much the (docs) in Kaiser are measured and all the – they already have a lot of these composites.

And I'm just and I know they feel a tremendous burden, they're trying to keep up, and for some of them their paychecks depend on it, a little bit of their paychecks. I don't know I'm just trying to understand it more than. I don't really have – I'm not against composites I just don't understand what the impact is.

Female: Well, I wonder if there's a point that you made and maybe you can type a response. But, you know, saying that immunizations are the bottom of a lot of list. I wonder if one potential value of creating a composite preventive service plus immunization measures if you start adding immunization into the same that these providers already do a lot and prioritize if that doesn't raise the profile with the recommended immunization somewhat. Maybe it doesn't but (inaudible).

Male: That's a very good point because I think that adult immunizations are always found in the low realm of the ladder with all of the preventive services. I can see how that could be a really big benefit actually because I think we don't make that a big push.

Litjen Tan: We want to make sure we don't forget that, I think when we – if this is what we recommend I think we also need to recommend that in measures that already exist we consolidate with the special populations. But that, you know, that what Joseph said we can't have pneumococcal vaccine at least showing up with those people with diabetes that are 65 years of age and older, so I think

we need to make sure we can consolidate into those measures as well that already exist.

Male: Yes going back to initial comment harmonization and consolidation are step one for making these composite measures set useful.

Male: Speaking to your point, LJ, it looks like that gray bar should be higher than the bar (inaudible).

Reva Winkler: OK, so the composite measures for special population needs to go up along with the composite measure for preventive services. We see nodding around the table.

Litjen Tan: I mean not creating new measures but the already existing measure. Just make sure we covered the vaccines and the …

Reva Winkler: Right. I think the actually composite may need to be created even if the components already exist pulling them together and aggregating them maybe to a new part.

Male: And ideally having those component parts be ones that could be looked at across multiple measures. You know, in the same denominators we looked at and make multiple sets.

Female: Eddy had a response. It may just depend on how the quality measure is assessed. The (inaudible) and the details of how the measure is constructed and applied and how providers are held accountable.

Reva Winkler: You're not trying to solve all of those problems. There is a whole realm of folks who do this for with great expertise. We'll hand that off to them.

OK, anything more around these composites? I guess not. Let's go on to the next group. What was the next group? I don't remember. Yes, we got there, OK. This is one – again, I think it's an example of a special population, by no means the only one, but certainly one that's important and I will say that the existing measure for influenza in the outpatient realm probably doesn't include pregnancy.

It's interesting I had three months back and forth of measure developer trying to answer the question. It wasn't a simple yes or no. And it's not that they're explicitly excluded. It's just the way the measure is constructed with the visit, (inaudible) and the way prenatal care is bundled.

They just don't get captured and (inaudible) is nodding her head. And so we don't have a measure for pregnancy for influenza.

(Off-mike)

Reva Winkler: On pregnancy. That includes pregnancy.

(Off-mike)

Amir Qaseem: And we're not going to have herpes zoster for the pregnant 65 year old either so.

Male: But Amir, to your point I mean just because they're 65 measures doesn't mean that they're the right measure. There's a reason that rates are – I mean I hate to be the one to suggest that we should create more. But it certainly begs the question that we evaluate what's ...

(Off-mike)

Male: Yes, of course, it's an important measure but making sure that we're doing it right and this has been continued with quality improvement, right. That's the principle.

Reva Winkler: So anyway it looks like it's pretty clear there was a strong support for measure that includes, you know, that would be both Tdap and influenza during pregnancy. Extend on our prior conversation, I mean that it is a composite measure that's just about immunization. The question is would you push it farther and want to see it can consolidated into – with other prenatal measures. OK.

Laura Riley: I think that is a load of suggestions anyway. We don't have that many composite measures and so it (inaudible) pregnancy is kind of low on it and it's …

Reva Winkler: Prenatal for sure.

Laura Riley: Prenatal for sure.

Reva Winkler: You're not the only obstetrician in the room.

Laura Riley: Right, OK. They're hard to, you know, hard to develop and I think that this is such an important recommendation for pregnancy that actually stand alone, probably health. I wouldn't (glob) this onto some other pieces of prenatal care that we know is done well. The vast majority of these measures are pretty easy.

Reva Winkler: Laura, do you think that they're – I mean, would it be better just to have a specific measure for flu and a specific measure for Tdap in pregnancy? Is it good to have them in their own little two immunization composites?

Laura Riley: I would put them together actually because you want to make sure that people are getting those and I think that if you have these two …

Male: Laura, can you explain the again so, why can't we have a composite measure for prenatal care, this be part of it? If you're OK with the questions before this, whatever we just discussed where we all agreed on composite measure for special population composite or whatever, the preventive care together.

Why does this need to be separate? What's the argument for it because that might also apply to that population as well?

Laura Riley: You know, I need Reva to help me with the measures, the prenatal care measures. There just are not very many of them.

Reva Winkler: Really aren't too many prenatal care measures around anymore. Most of them are visit-based, that you have X number of visits during your pregnancy. I mean, there just are very, very few. It's an area that needs further development. So, we're talking about combining it with things, we don't even know what they are yet.

Laura Riley: Exactly and I'm just a little concerned that – I mean, having (inaudible) committee. I mean, we X out lots of …

Reva Winkler: We didn't even have that many come in that were truly prenatal care. I mean there's a lot around the hospital, you know, during the labor and delivery deal but not the routine preventive, you know, standard of care.

Laura Riley: And there were a lot of outcome based but not (inaudible) prenatal care. I just think it's just a very difficult thing to come up with. The only other thing is, is that they're timing related too. So, I would hate to see (inaudible) together something that can only be done in the first, that only pertains to the first trimester setting. Like, did you offer prenatal screen and this would be (inaudible) patient and in fact, you know, did you offer prenatal screening?

Well, that has nothing to do with whether or not you got 27 weeks and actually offered pertussis should be offering it. And I just see with the timing which we already have, we already know that we have issues with people giving these things at the wrong time or feeling uncomfortable giving flu in the first trimester of the visit. You know, the recommendations changed years ago so I just think that this may be one where you just want to get something that's general that you give it during pregnancy.

Male: OK, makes sense because we don't have enough measures or we don't we have right measures in this arena so makes sense.

Male: But timing, it seems like an important thing because of this you're going to be asking for it after the pregnancy is over because they could get it. You know, particularly pertussis, the later the better in a way. So you can't really ask until after the baby is born, did you do it. So that's kind of hard isn't it to then measure that afterwards because then they kind of move out of your service, right? I mean, they are no longer OB.

Laura Riley: It's not going to help that particular patient, right, because you've already missed the opportunity but if you're reporting your rate and you've got really low rates of pertussis immunization in your patient panel then we need to go back and figure out what's up with that.

Male: OK. No, right. I mean, you have to – I was thinking the measuring would have to come after the pregnancy is over and I think for many people they move out of their measuring realm as they deliver. I didn't – maybe they don't, maybe they …

Reva Winkler: We still have the record.

Laura Riley: Postpartum, there's the six-week postpartum visit that's still part of the whole prenatal care package so that you can – So our other visit, our other measures all depend on measuring after the pregnancy is over anyway. And so, what you're measuring is that particular visit like did you screen for group B strep at 35 to 37 weeks. Well, you obviously can't answer that question (inaudible).

Male: Yes.

Female: Is there any issue also and I want to clarify that I did vote for the combined measure but is there any issue with the timing and the seasonality of influenza? I mean what if you're 27 to 40 weeks, you don't have them during influenza season? You just blank somebody out of the measure if they're not or blank somebody out of that half of the composite if they're not eligible for vaccination.

Laura Riley: We'll that's part of the difficulty that we have had in measuring in flu season with measuring whether or not someone gets vaccinated during the pregnancy. In first place is when did the vaccination happened, how (inaudible) pregnant were they like – I mean, nine months, you're going to get the vast majority of people who have been pregnant (inaudible).

Female: Right. I was specifically thinking of combining it with Tdap because didn't you and I'm not hugely familiar but isn't the current recommendation that Tdap is pushed pretty far back in the pregnancy. So if you have a combined Tdap with the measure and the Tdap only covers the very end and that very end doesn't happen during influenza season.

Reva Winkler: But the measurement is usually retrospective of the record so they didn't necessarily get the two injections at the same time.

Laura Riley: So if you delivered, if you, you know, became pregnant in say, I don't know, November, you would've gotten your vaccine when it was available first trimester, whatever. And then you get to 27 weeks and you should be offered your Tdap and you get your Tdap between 27 and whatever gestational age. And then you deliver, you see with your six-week visit, we should be able to say that that's (inaudible) flu and pertussis.

There are going to be a few people who don't get flu because they manage to maybe not have it. It doesn't make sense. You know, it's nine months. You should have touched it …

(Off-mike)

Laura Riley: Yes. Not in a full-term pregnancy. So, the ones that you will get missed are going to be what's your incidence of preterm delivery. I mean, we've looked at pertussis or your no prenatal (cancer). We've looked at pertussis like in our practice and 80 something percent of patients consent to and get it. I mean this is our preterm deliveries because we were talking to people about it at 27 and 28 weeks and then vaccinating them at their next visit which might be at 31, 33.

And then some, you know, 12 percent of people that didn't deliver earlier than that and they weren't getting the benefit of the vaccine by us giving it so late, you are going to have that as an issue. It's like …

(Crosstalk)

Male: (Inaudible) of exclusion criteria. Maybe a little complicated but …

Laura Riley: Yes. So, that's what you do is you look at the gestational age at delivery.

Male: Right.

Female: Well, I think (inaudible) getting mixed up with the timing thinking about the specific timing of the Tdap but yes, going back to the whole issue of it really being retrospective after the birth probably. It doesn't matter because the patient have gotten (inaudible).

(Off-mike)

(Crosstalk)

Male: But the flu stuff has to be – there's a lot of ways to mess up with the flu stuff because we've got to time the pregnancy, the week and then the flu season. And I think a lot of our flu measures, you know, take the flu shot out until times when flu isn't even available – isn't in the community. And so, people would, you know, if there's no flu and we're still telling people what you need to get your flu shot, I think that would be a bad measure. So, when we do flu, it's good to have local – if there is local data to pay attention to that.

Female: But I think you get into a concern with comparability like I know the standards that NQF established like there's a big time period and often yes, there isn't flu circulating during that whole time but it's easier to say. You're going to measure October through March every year. And so, every measuring is same.

Male: I agree that I think people (inaudible) and I think people then feel like measures are (inaudible) because they're measuring things that are not helpful. And so, people – at least in our community when we're telling people they have to vaccinate people for flu when there is no flu. When the flu season is over, you're making two announcements in the same thing. Well, flu season is over, we can vaccinate for flu.

Male: I think the key there is that the flu season doesn't ask permission when it comes every year.

Male: Yes.

Male: And it comes like right now in our health system, we haven't seen H3 at all the entire year. Saturday had two positives, Sunday had a third positive. So H3 is now starting to come and we saw this in 2012 where we had cases all the way through the summer. So, you know, what we're telling people is when the vaccine expires which is typically June, that's when you stop.

So, I think the flu season, there's always some endemic rate of influenza that's circulating and we just can't predict it and that's why it makes sense even though it's not there, the chance that it could be there and even mortality is substantial.

Male: Well, I personally think the flu vaccine only benefits when there's flu circulating in reasonable amounts and one case of flu doesn't make a flu epidemic. So, you know, I track this really closely and when there's no flu there's no flu and we're still telling them to give flu shots so it just seems like a big – I don't know but it seems weird and wasted to me and it seems hard to tell that the providers, you know, we're kind of giving a double message, that's all.

Male: But you can't predict what will happen in the next month or two so you can like with the …

Male: I think you can predict what's going to happen in the next month. In May I think you can predict, I think in March you can predict, I think I can predict.

Male: I mean this year if you looked at it you would think that the flu season is over. I think it's not over, I think it's still coming because we're now seeing H3 which we didn't see (inaudible).

(Crosstalk)

Male: I think the flu the season is pretty predictable, not super predictable but pretty predictable and that it usually ends when it ends. And when it ends it's gone now. That's not – it's always true that there's some flu even through the summertime. But I don't think we should be vaccinating people in June. But maybe people disagree with that so …

Male: Going back to pregnancy and the measures for Tdap and influenza vaccination, are we pretty much onboard with this one? Great.

Reva Winkler: Diabetes is a special population, it's a big population. We've heard people talking about it before. Again, including hepatitis B, measure for hepatitis B for patients with influenza – I mean with diabetes (inaudible). But the other

question is, you know, is this a special population for which maybe there is a composite potential going on for including hepatitis B with other measures for diabetes care.

Well, those two actually get captured in existing measures. Now, if you were talking about potentially, you know, making a combination with other care processes, you know, we would want to include them.

Male: Although pneumococcal may be captured in other measures, well that hasn't penetrated. Our diabetes community doesn't seem to notice that. It's one that just kind of fell off the radar. I don't know what you think about it ACIP but I feel like that's one – I don't understand why nobody noticed it.

(Crosstalk)

Female: I like to comment. Very specific risk group with specific recommendation (inaudible).

(Off-mike)

Reva Winkler: So does everybody, would everybody agree with that, that the composite for the special population seems ideal rather than an individual measure for hepatitis B that go with more of a composite to include at hep B, pneumo, flu, whatever, all three.

Female: But we're saying include that with input care and blood glucose and the whole gang out there.

Reva Winkler: Is everybody good with that? I'm seeing nodding heads. OK, all right. Well, that was pretty straightforward.

Male: Just to be clear, I completely agree about the composite measure here but you will need to be able to identify (inaudible).

Reva Winkler: Right.

Female: I think that the caveat to all composite measures is to be able to pull out the component data to know where it's failing.

Reva Winkler: OK, another big special population with renal failure, ESRD again, a lot of support for hepatitis B vaccine measure.

Male: I think the diabetes – again, we're just talking about this. Do you think that diabetes, hepatitis B recommendation was made because of they go on to ESRD. But we don't think there's any composite or any measures for people with early CKD who will all go on to later stage CKD and that's a big population at risk. And I'm sure we should be making new groups now or anything but it seems like that's what we're really getting at is people who will progress to CKD so people with stage three and four are probably the ones that should be targeted for some of these.

Female: Yes.

Male: And maybe we should go just for four and five. One to three is early stage, right. I mean, you're absolutely – that's a very good point you're bringing up.

Reva Winkler: I just wanted to mention that when the MAP looked at measures (inaudible) influenza and this is (inaudible) for immunization and this is in your – the handout. The Measures Application Partnership looked at a large number of measures in all source of topic areas and for recommendations for specific programs. They did look at ESRD patients and they looked at influenza and pneumococcal. So, but I'm not aware – I can't think of any – for the earlier stages of CKD, ESRD that we see most of the activity around.

Male: Respond better than the vaccines like hep B they'll respond then and you'd want to exhibit (inaudible) pneumococcal, right.

Jeffrey Duchin: So, hi this is Jeff, you know, the HIC recommendation does specifically state that the vaccine is recommended for adults with type 1 diabetes between the ages of 19 and 59 and should be administered as soon as possible after a diagnosis is made.

It also was driven largely by the issue of transmission of hep B in long term care facility and other care facilities (inaudible) as opposed to specifically the renal patient issue.

Jeffrey Duchin: Yes, Jeff, that was correct. The main reason that the diabetes and the hep B came out is because of the outbreaks in long term care where there's a 90 percent mortality rate. And there's no way – other way to capture it.

The problem was when you got to the age of 60 the qualities were about 5 million. So that's why it's permissive after the age of 60.

Jeffrey Duchin: Yes.

Reva Winkler: OK, so I guess again similar to the diabetes you would want to see these vaccinations in the earlier stage of renal disease and incorporated with other care, all right.

Let's go on to another one, chronic liver disease, measures for hepatitis C. Let me tell you sort of history there. There have been measures for hepatitis B for patients with hepatitis C. And in the last go around the evaluation of those measures, the NQF endorsement was removed because it was not a completion of the whole series.

It was only a single dose, and a single dose the community felt just wasn't going to convey sufficient protection to be counted as having gotten anything. And so, as a result this is a gap area measures for hep B and it was only for that narrow population of hep B. It didn't include everybody else with liver disease. So this is a gap area in a broader population and the need to have the measure construct really reflect the full series of the vaccination.

Male: I just – I guess my comment would be a (inaudible) focus on chronic liver disease population. You probably need to look at A and B rather than just one or the other.

Reva Winkler: Yes, actually we do have the measure for A, for hep C patients but I think there could be a recommendation to broaden it, put the two together and right, yes. OK.

Female: So is this a big impact area?

Male: Why do we have chronic liver disease in the list when we're talking about diabetes and CKD and all that?

Male: But if you look at end stage kidney disease and chronic liver disease you're looking at very similar numbers.

(Crosstalk)

Male: ACP is now looking at hep A and hep B, that's the next work we're charged. That's going to start this month.

Reva Winkler: OK, so any other thoughts around chronic liver disease that we do want the measure to measure the full receipt of the whole immunization series and the whole vaccine, all right. Yes, OK.

All right, let's go on to the next. OK, this was the one we talked about earlier. We've spent a bunch of time talking about process measures, but outcome measures. And so the question, there seem to be sort of support around looking at outcome measures for but I would think to call what you were calling maybe system, plan, health systems, ACOs, sort of, you know, large organizations for vaccine preventable diseases and I think some of the conversation around what we have this morning there was outcome measures could include cost, you know, those sort of things.

We certainly see some outcome measures, some of the states actually monitor things like hospitalization for influenza. You know, mortality clearly, when that's an issue. So there are outcomes of interest probably at this point around influenza rather than some of the others which might be more difficult to manage.

But again, given full days of conversation, does this still represent a priority for you all in development of outcome measures?

Male: Well, I think one of the questions I have is, you know, in what way is the outcome measure actionable and is it telling us something that generates us to be able to do something and I think the point that was made earlier about all

the confounders that go in to health status related outcomes. But to me that's an open question.

Litjen Tan: (Inaudible) for patient reported outcomes and I do believe outcomes is important because people are asking for this but I actually subscribe to the concept that we need to prioritize the process measurement first. And that, you know, and that this should follow from that. I mean because we need to get our process done and then we can start thinking about the outcome measures.

I don't think it's – for immunization I don't think outcome measures are high in value for us as (inaudible) measures.

Male: I think from an outcomes standpoint from my perspective it's more public health surveillance and maybe more active surveillance for some of these vaccine preventable diseased that we currently have at present. But I think really in this area in particular we almost have a dichotomy between those kind of public health outcome measures and our process measures of vaccination.

And they're complementary, but I think your measurement is going to be very different strategy wise.

Male: But that doesn't mean you belittle the outcomes. I know outcomes are important here.

Male: Well, I hate to bring up the topic of zoster vaccine again but, you know, health – large healthcare systems that have many (inaudible) and have been vaccinating over time they can tract outcomes related to zoster infection much better than, you know, public health agencies can for example. And they know who's been vaccinated at the patient level on different outcomes.

So I think it's something that's reasonable to consider but obviously, can only be applied in certain settings where there is a (inaudible) patients who can be tracked.

Male: I'm just going to put in my two cents from a practical perspective doing, you know, national reporting on quality in the study. So it's easy to make cases for things like diabetes, end-stage renal disease because I can say, you know, these many people died. This amount of money could be saved by a better treatment. This number of hospitalizations could be prevented.

And I know when it comes to these vaccine-preventable diseases specifically that is typically missing and I cannot make a case with them. So that's why I think that the outcomes will be very helpful. My question is more with that outcomes are practical given the current state of science and all the different kinds of adjustment issues that entail (inaudible).

Male: Are we saying more that we think we need good research on outcomes and we need measures because I think the measures are too complicated, I mean the whole thing is too much to just say well X equals Y. It's really a very complex formula.

Male: It need more research and better tools in a lot of ways. Better tools in a lot of ways can answer some of these questions.

Male: To me that will be a perfectly desirable kind of recommendation. But I don't want to just forget about it. I don't know if we can make a recommendation on that.

Male: And Ernie, do you have a position as to what kind of, what outcome would you like most data on cost outcome hospitalizations. Because I think that would help also, you know.

Ernest Moy: Any of the above. Obviously, the things that sell best for us tons of people cost tons of money and are easily preventable, right.

But any of those things would be helpful. I think from vaccines we struggle because it's just not very much there that I can find at all.

Male: Do you think there's a (paucity) of data on – of good studies on cost of vaccine preventable, you know, (inaudible)?

Male: Yes or at least something that I can bet that I can show my report to why these are important elements, and obviously if we track the very terminal outcomes, the immortality and such for these conditions, it's pretty small, it's had for me to make a case but this is really something critical. If wonder the one that (inaudible) case on, but it's get really squishy because we don't know which of the, you know, influenza like illnesses are actually influenza.

Male: This gets us some funding for us and we'll be having …

Male: OK. You can recommend getting some funding for yourself.

Male: Yes and this is challenging because CDC just had a paper published a couple of months ago where they reported the vaccination program this season prevented this many hospitalizations, this many deaths, and then have you only say "well, you know what, especially for influenza it'd be nice to have some of these numbers."

Male: (Inaudible) I mean we talked about it I know in our groups and I think there are so many footnotes (inaudible) correctly associated with those numbers that made it …

Male: Yes, I think that's the limitation section on the papers as long as the discussion section.

Male: I think this would be a good for the area of hepatitis B where most cases of hepatitis B are coming to the attention of the healthcare provider and it's a reportable condition and they can be captured. And it's less of an issue of capturing that. And then again, at a large level because the rates are so low, so state levels of monitoring that. And that would allow you then to drill down into this some areas.

Reva Winkler: So basically what I've heard is outcome measures less of a priority for you, and (inaudible).

Male: I don't know if it's necessarily less of the priority, it's the concern about being able to get accurate outcome data with the tools that we have at present, you know, for example pertussis we don't have good active surveillance for

pertussis. We don't have good active surveillance systems for basic pneumococcal disease. We don't have good active surveillance system for incidence of zoster particularly with neuralgia.

You know, if we had ways of doing those widespread like this really could be vital information to have. We just need better tools in order to be able to answer those questions on the outcomes side.

Reva Winkler: So it sounds that rather than a measured gap priority for the near term this is more a recommendation for development of the tools and methodologic investigation on how these outcomes could be created as a recommendation rather than an immediate gap that someone could address. Did I capture that right?

Male: And I'm just going to say in looking at it I think hepatitis is the one that's right to go forward.

Male: I think the incidents of hepatitis would be enough.

Male: So then it has to be a large level so it has to be at national reporting and state reporting.

Hepatitis you could look at outbreak reporting for measles and mumps, you know, those kinds of things. But again, those are fairly small potatoes when you look at the big picture.

Male: There is a challenge also that with flu, I think you know, asking for an outcome measure for pulling mandatory healthcare (inaudible) broken to three facilities which I will not name. Where – they've (inaudible) and their rates are now at 99 percent and I'm saying OK, you've been doing this since 2007.

You know have you shown a decrease in this, this and this. You can name any of those three and this is well now we know and never even looked and we'll say well, why didn't you look? Why should we look? We're already at 99 percent, I don't need that data. And it would cost me a million and a half dollars to do that to get that data for you so that you can convince some other institution, no thank you.

So that's one of our challenges with the outcome. I mean it's resources too right, I mean and you know in a lot of these private sectors are not going to do this simply so that I have data to convince someone else to do it.

Female: Reva, Eddy said I think outcome measures for vaccines do not make much sense given a current science or state of the quality measures field.

Reva Winkler: OK, is there another one (inaudible), did we go through all of them, I can't …

This is one that's (inaudible).

Female: One more after that.

Reva Winkler: OK, so again we talked about and making notes very well the existing measure that's used at the facility level going into play in the IQR.

Other recommendations of the ACP guidelines, you know, measures for hepatitis B, you know, do we start combining flu and B, anything else, for healthcare personnel, and that seems to be the popular choice with a variety of, you know, thoughts on what those gaps might be.

So, thoughts from anybody?

Is flu enough to start with? Is this really an area of priority to push further? I think the issue is that every other ones, since you don't have to get it every year and somebody might have gone that 20 years ago, it's hugely problematic. And I hope everybody in here is really start – can figure out how we can measure because I think hepatitis B is an obvious next one, I mean, their, you know, MMR hepatitis B, TDAP, all very important.

And one of thing just – that we've might want to think about with the healthcare personnel is, a few years ago, there was a measles outbreak and one of the huge problems that they had is that they couldn't figure out if the healthcare personnel serving the patients were immune because they didn't have the record. So, they're – in addition to protecting the patients overall and not transmitting to them an outbreak situation if there's another advantage to having these measures potentially.

Male: Interesting. Give you an anecdote, we all love anecdotal medicine. Recently in my area, there has been a number of healthcare systems that have not been able to track back older hepatitis B vaccination requirements. And so they've included in their credentialing packets a declamation form that you either sign, that you decline getting another hepatitis B series, or you can't get recredentialed unless you go get the vaccination series.

So, again, brings up the issue of one of these legacy records that we don't have a great way of tracking back any of them on paper or in file formats that are no longer valid in our current computerized error.

(Off-mike)

Male: … because I couldn't find the records. And the easiest thing for me was that to get the shots again rather than (inaudible).

Male: But that's – I can – that a measure like that would result in a tremendous amount of over vaccination of people who don't need it because all those people who got vaccinated and they got three shots now will get their hepatitis B (inaudible) and being negative, and they'll get the whole series again where they don't need it because they don't need an antibody, they're fine, they're protected for their lifetime if they got that shot. I see this all the time. And nobody knows what to do about this because – and it is a huge issue and I just feel like mandating it.

I mean, we already vaccinate everybody with six hepatitis B shots if they're hired – anywhere, they're hired out somewhere else where they end up with another three. And then if they don't have a record of it, they get three more. So, I'm not – I think there's, you know, in our system, I thought this is – other hospitals – I mean, it's part of the employee health, they're stuck, they've got to go to and all that stuff anyways and measuring them won't do any good. They're already tracking every single employee and making sure they're vaccinated in the hospital. Aren't they – is that not done through healthcare workers?

Male: They are. They're supposed to be, but again, the problem boils down to a lot of these older records, RN formats that either cannot any longer be accessed or they can't dig through the stacks of files. And so they're, again, giving into an issue a duplicate vaccination or having to sign off on declamations when they're already in it.

Male: So, when the measure of hepatitis B kind of end up being all – all that stuff would all be thrown into the midst, right?

Male: Yes, it would throw more mud in the water.

Female: Yes, I'm not sure what the measure – who was measuring because this is really under OSHA and occupational health. And I don't know that you're trying to create a measure or sort of standards for them. So, I'm afraid this doesn't make any sense to me to measure anything (inaudible).

Male: The CDC does have guidance now on this from December. We just published on this issue as part of the (inaudible) task force that went to CDC and they made recommendations to try to get (inaudible). And hepatitis B was in there, we would have to look at that. There are several different – there are two central options that (as well) you can take to get at that issue, and it would have to involve the inclusion of tighter management as well.

Male: This is not in support or against hepatitis B, but just to clarify, OSHA does not mandate hepatitis B immunization of healthcare because it mandates the education and offering of hepatitis B vaccine.

Female: I think …

Female: And finding a declamation form if you refuse. So, there's always a paper trail about what goes on.

Female: Yes. And I – sorry. Just, you know, I know what's the work we've done around flu that it isn't that clear about who you're measuring for healthcare workers as much as you would like to think it is clear.

With hepatitis B and MMR, I mean, we definitely come across the issue where we have a (inaudible) about break and then the healthcare system and hospitals really scrambling to come up with those records. So, as much as we can, we encourage occupational health to get those in the mix or get them into the registry. A lot of healthcare workers will work in more than one setting. But for the registry, we'll come in really handy.

With hepatitis B, I'm not necessarily advocating for a measure, but what I hear from especially like assisted living or maybe long term care facilities where they are mandated by OSHA to offer and provide education is that they don't necessarily push it on to their healthcare workers so they don't really advocate for the healthcare workers to get it because they don't necessary want to pay for it and they don't have the resources on site to get that vaccine for their healthcare workers.

So, there's a section of healthcare workers that we're missing with hepatitis B vaccine, but that being said, long term care and assisted living aren't currently measured with influenza – healthcare worker influenza vaccination measure. So, it's kind of a whole ball of wax that it kind of feel like (inaudible) or on our own committee to discuss.

Male: For my education purposes, can someone educate me about why it's difficult to measure this at the system level, the (inaudible) for this, about vaccination for healthcare professionals.

Male: Measure protection or measure of the series that we're given because …

Male: Series of the event.

Male: So, hepatitis B, you need series of three. And at the end of that series of three, you need your (tighter). If you're a healthcare worker and only if you're a healthcare worker and you don't know when you're going to become a healthcare worker, so most people just get the series of three and that's it. If you're a healthcare worker, it's mandated that at some point, you get a level. And if that level is positive, you're protected we think for life. So, that's very difficult because, you know, those (tighters) fall over time, and by 10 years, they're usually negative.

So, if you measure them too late, then it doesn't do any good. It's just a big confused mix of different (inaudible).

Male: So, that's hepatitis B, what about the rest of them, flu, MMR, any of them?

(Crosstalk)

Female: Yes, I think …

(Crosstalk)

Female: Yes. We – so, in Minnesota, we've measured hospitals and nursing homes for quite a while and we measured through our registry. And hospitals are pretty easy, they'll come on board, and they're willing to do it. Long term care is, well, harder just because they don't have as many resources. They have a lot more turnover in their employee population, so then how do you define, you know, with the healthcare worker, did they work there during the full season or did they not. You know, one of the special case, but it's more difficult that one would think.

Female: I'd like to add, again, we in Virginia are not quite at the same level with those in Minnesota. But what we have discovered is that it's not measured, it's not necessarily done. We've had mumps and we've had measles, and the facilities have to scramble, they don't have documentation, so they wind up furloughing people because they don't have documentation for vaccines other than hepatitis B (inaudible).

Male: This is good, I mean, this is fine. I'm not arguing. My only concern is that we're recommending everyone should be getting these measures and we should – measuring it, but when it comes to healthcare professionals, we don't have to do this in terms of measurement. That's my only concern, we're contradicting ourselves. So, to the outside world, this might not look as – it's not (inaudible) because for us there are lots of reasons we are coming up with, the whole documentation and all that. But for the rest, it's fine.

Male: I think that flu is a real measurable and for healthcare workers, it's a big one. I mean, it's a transmissible disease. They're giving it to the patients rather than the other way around. We're worried about hepatitis B to protect the healthcare workers but not for flu. And so I think that Jennifer identified a very important issue which is a long term care facilities, that's a huge – no, but I mean, they're interacting with a lot of people there and that to me is a really big issue that, you know, I don't want my 95-year old average patient, you know, and they're going from patient to patient to patient with the flu and you know that they all go in when they're sick.

So I see that as being a very important thing. I don't know that it's measurable but I see that as being a real issue and I think we've identified that as, to me at least it's very important.

Male: And again, there is no one over here from VA and I would have really liked to know what's going on. My concern with this healthcare personnel one is their VA rate is going down.

(Crosstalk)

Female: Yes, yes, but the VA doesn't have a mandate. They don't have a mandatory healthcare working with and they know why the rates (inaudible) rate going down for the healthcare.

Female: Yes, because yes, it's (inaudible) tell you, it's because of the fact that they, you know, they entirely do their education involuntarily long-term purposes, it depends on the treatments.

So the rates gone up actually and it was only allowed (inaudible) backlash in 2000 in each one (inaudible) and I think there was a little bit of he call it the flu overload.

But the VA does not support mandatory vaccination. There is entirely no voluntary. But they're up to like 77 percent and my position is that this voluntary immunization for healthcare workers, you get to 77 percent.

You will require measurement and mandatory (inaudible) to get to the 90 percent that you want to get to.

You're actually doing a big project with long-term care right now and Dave will know it's more (inaudible). But one of the things we found out because of the long-term care population which I think measurement is a good thing.

Firstly, geometric measures (inaudible) acute care facility, in the long-term care facility so that's where the areas of management.

But for the (inaudible) nursing aid, if you look at that population, I'll turn over how much money they make. It's a totally different kind of world to kind of get them immunized. They have different philosophies, it's then and I think a measure would actually bring administration onboard. I think it would be very helpful. And it's a population that that created about 37 to 42 percent depending on the year that you look at this and I don't see that rate going up in the absence of three dramatic environmental change.

And Dave you can correct me if I'm wrong.

David Nace: No, I agree, you know, you're looking at a 50% turnover per year from (inaudible).

We do have an NQF measure and Megan knows about this because, you know, (inaudible) tested, it's reliable, it's valid and it has been tested in long-term care populations. The challenge is that there are 18,000 long-term care facilities who don't report to NHSN and/or 16,000 facilities currently reporting. So we would double NHSN's budget or quadruple it I guess in order to get a reporting in.

That's kind of the big challenges getting in the point, but it can't be done.

Female: I think you've seen something kind of interesting happen with the measure and then sort of in that. This NQF endorsed measure and recording CMS happen in 2013, a lot more facilities are going on to mandate this healthcare worker vaccination just for ease of measurements.

And so it's just been kind of interesting and it really has (inaudible) awareness and push the facilities forward in creating policies. And I definitely see that there could be a role for that in long-term care too. But it is harder with, you know, they're not used to reporting to NHSN and it would be, you know, a huge budget increase and a lot of resources.

Male: You know, facilities certainly can improve your rates and you know, voluntary wise we can get them into the 70s, you know, mandatory we can get them into the 90s. If there is a measure and they're held accountable, it will happen.

Female: What I'm hearing is that this point in time, holding on the flu measure that in existence and not so much pushing for another measure or healthcare personnel.

Female: Yes, not to me. I guess it's just that we don't have, we're kind of letting the data availability drive whether we think it's a priority and maybe that's the right thing to do and maybe (inaudible).

Female: But to tell you (inaudible) might be transmitted to different way but the same way I don't want somebody leaning over me and treating me when they are (inaudible) surgery on (inaudible) in a second.

Male: Because that's what I told. This morning that a lot of measures we talked about where data is an issue, that this one, I feel like we're making an exception, I have this thing (inaudible) things.

Female: And you're going to make your priorities as you wish, you know. I think data is an important consideration. Remember, we were talking about both short term and long term but perhaps those that have some data challenges maybe something we have to think about more of a longer term, still a priority but isn't likely to happen tomorrow of the data challenges. And if we feel they're important enough that the main and significant priority, then that maybe more longer term priorities rather than a short-term priority.

Male: What do you think (inaudible).

Female: At the end of the day we're going to blew it on. I'm more something like that but we're going to do that, so we can totally take care (inaudible).

Female: But the question is based on these conversation, I'm creating the list of things you'd like to work to the top and those that (inaudible) would want to see if we can come down to something even more focus.

So the question is do you want to feel that the hepatitis C should stay and for healthcare workers, should stay a priority at least for now.

Male: And before we can do that, can someone answer what Megan did. That's the key because that's around this problem.

Male: So that is an issue with a lot of other measures as well. Why is this one has an exception why we think this is something …

(Crosstalk)

Male: I'm trying to (inaudible) an exemption in my case because of the confusion around the vaccine. And because until – because there's all these problems with, you know, trying to figure out somebody who is detected or not. I find it really difficult. I mean it's not so many different (inaudible) of each individual. I mean it would just mean huge amount in testing and a huge amount of (inaudible).

Male: I heard it (inaudible). I'm personally not concerned about that. I would like to see if (inaudible). But I can cure, you know, I mean there are concerns from folks who does not have (inaudible) immunizations because of the fact that the records are so far backdated.

I can also hear concerns from people saying that, you know what (inaudible) recommendations anyway and I think most of these healthcare workers are going to have vaccinated children and you also need to focus on a (inaudible). I mean I can see all that comment so I can se both sides.

Male: I guess as I heard of the case of hepatitis B transmission (inaudible). I mean (inaudible) within our system, is it (inaudible) some data that showed me that this is some kind of common thing.

I might be more concern but I think of it as being actually or that our workers are very protected and that our patients are very protected. And then I don't – I guess I just don't see as being, you know, it's like flu, everybody is getting flu, that's all right.

Female: Can you clarify the (inaudible) recommendation, just because I get this question often from general members of nurses or whatever. And if their titer is negative, they get one dose and …

(Crosstalk)

Female: OK.

Jeffrey Duchin: Hang on, that's not exactly correct. This is Jeff, sorry. You do have the option of administering one data so rechecking the titer because many of them, the majority of patients have been remotely vaccinated, will boost up to over 10 international unit after one dose.

For those who boost up over 10, then deal. For those who still remain undetectable, then the recommendation is to get more two more doses are complete series and then check (inaudible).

Female: Yes, and I think that's what we usually advise that (MDH) is that one dose in (inaudible) titer.

Male: But if you look at the ACIP schedule, they do say that administering (inaudible) doses to complete a three dose series of hepatitis C vaccines, those were not permitted are not completely vaccinated.

(Off-mike)

Male: I'm not sure we are looking with the 2013 guidance. There's a lot out there (inaudible) on the web but the 2013 guys fairly did see options specifically for

healthcare workers to do the one dose booster, recheck titer and then go on from there as an option.

Alternatively, you can just give another series and that's pretty acceptable.

Male: Yes. I think that one dose is if you're checking them on down the road but it's not right afterwards. If you check immediately after the series of three, isn't the recommendation to then reduction that reports to.

Male: Yes, if you check within two months in the series of three and you're negative, then you consider to non-responder and the recommendation is (inaudible) series in checking that.

Female: But in most of these cases you won't be able to check right off if they were vaccinated 10, 15, 20, 30 years ago.

Male: Yes, that's the main issue, that patients, the adult patients were coming in saying now they've vaccinated with no documentation.

But you know, hospitals should be doing this anyway so I'm not sure why it's problematic to sort of try and get some standardized reporting of it.

It's a problem, I agree, but I'm not sure that measuring it makes the problem worse.

Litjen Tan: OK, I think what's interesting though, Jeff, is that I can't remember last week I pull up but I think healthcare worker (inaudible) like 57 percent, is that correct Megan? Not even that high.

So I think the way you set the measurement is going to be important because you said that the 80 percent I think, you know, which is where we actually want to be at a hundred percent, right? I think what's going to happen is that a lot of that panic will (inaudible) will lead to (inaudible) which is what Roger is talking about.

So, you know, once I, you know, I mean I am complaining about the (inaudible) but once you went through the (inaudible) and did everybody and they're documented, it would be one time thing. So I mean if you were just

setting the bar a little higher and I didn't realize that rates were so low if rates were, you know, 60 percent, I mean that's no better than flu and that's actually really kind of shocking to me. So (inaudible) yes.

Male: That's exactly the issue. I just answer one precaution that just came is that they should be doing it or we should all be doing all this anyway that's why the performance measures that they're so – I just want to make sure we are not picking and choosing that's why we are pushing for this measure.

Male: For policy (inaudible) I mean I think it should be included. I suppose that it should be.

Male: I agree with this and you know, just it's important we continue to see how their transmitted cases particularly in long-term care and it's just (inaudible) facility, but we also see them in hospital settings and we look at hospital systems in North Carolina.

We looked at Pittsburgh and we look at I want to say New York. I can't remember exactly that there were definitely cases of transmission from healthcare workers.

Male: I could put it to recommendation (inaudible) I think I personally engage (inaudible). I would like to see some kind of measurements for long-term care facilities that do not have acute care facilities on premise because they are not being measured.

Male: Yes, a lot of – believe it or not, a lot of long-term care facilities don't understand but the OSHA regulation is actually – it's been fight and how it's been handled. And personal care (inaudible) or it's just (inaudible) just forget it.

Female: I know we probably need to move on. I just want to ask a question that I probably know the answer too. But for MMR and for fellow, can you get a tighter lifetime, is it the same issue or would you be able to assess somebody's immunity with the blood test.

Male: Yes. So MMR you can just document to OSHA and it's OK, you don't need to do a titer (inaudible).

Male: Blood titer is generally positive lifetime …

(Crosstalk)

Male: Or vaccination for MMR (inaudible).

Female: So, in that case if you didn't have your documentation, there would still be a way to assess and thank for their fellow.

Male: Yes.

Female: So that might be something to think about.

Male: Yes. So the titer is not (inaudible) and people – but I think it would be OK to do it and just (inaudible).

(Off-mike)

Male: Yes. So for instance people – older people who go to get the shingles vaccine when they – you know, a lot of times people check them to see, yes, they're not supposed to but a lot of them chickenpox actually turned out to be negative.

But I think it's reasonable. It's not perfect.

Female: But would it be considerably easier to implement the quality measures for MMR in various set of vaccinations which is unlike (inaudible) try to see – you could just give somebody a blood test to determine whether those (inaudible) even if they didn't have their documentation.

Male: Well, this is (inaudible). I mean I think it's not reliable enough to screening – many, many adults and children after their (inaudible) vaccine will have negative titers.

Male: But because of that, yes it does seem that we need to probably think about (inaudible).

Male: No, actually it wasn't.

Female: (Inaudible) would you say, I'm sorry.

Male: I would be suggesting that if you were responding to my comment. I think MMR, I mean it really depends. I guess it's reasonable to be wanting to go to the healthcare worker, you know, to look at all the recommended vaccines for healthcare workers.

And I guess again the question is, what is our purpose here. Healthcare facilities sort of are supposed to be doing this already and I'm not sure if that's the intent.

The first person who will be making comprehensive measurement guidance that would include specific measure for healthcare facilities, then I think it is appropriate to include all the recommended vaccines for healthcare workers.

And if we're just trying to take a few important ones from the national perspective since healthcare facilities are already supposed to be doing this, I'm not sure how important that is.

I would say measles is probably is more important than varicella.

Male: To wrap up this conversation, how about we – the best way to quickly because (inaudible) have to move this along, how many things that can have a composite measure that includes hep B. varicella, and MMR throughout the go, throughout than just hep B. and flu, yes, yes, sorry.

How many are in favor of a composite measure?

(Off-mike)

Male: OK, I include the individual (inaudible) as well or just the composite.

Female: Yes.

(Off-mike)

Male: I think if you're going to measure hepatitis B. it makes a little sense not to measure measles, not some varicella also personally.

(Crosstalk)

Male: I don't think so. If you're going to measure hepatitis B. you should be measuring all of them.

(Off-mike)

Male: That the ones we just talked about (inaudible) the composite, immune.

Female: But not necessarily thing or composite. I mean we should be measuring this at all. The only thing that there is an endorsed measure for is flu and (inaudible) just kind of …

(Off-mike)

Female: No, it's just flu. I'm just saying this in general whether it was composite or not, if there is a way to measure MMR immunity or these other things but it's something that should be considered because of the high risk of transmission in both direction.

Male: I'm sorry, I step back, I think it should flu and hep. B. I think just right about that, you know, with MMR and breast cells, I think the facilities are really actually doing that really pretty well.

(Off-mike)

Male: No, I just – if we're going to make an argument for doing hepatitis B. I don't see a reason to do hepatitis B and not do MMR and varicella. You're talking about a similar paradigm in trying to protect patients.

And I recognized the challenges and difficulties, you know, of hepatitis B and the others, you know. I just, this past year, had to be reimmunized against

hepatitis B because I was vaccinated in 1987 and was titer was positive in 1987. And because they couldn't find the record, actually from my understanding here is the vaccine advocate. I'm going to get reimmunized rather than decline. I'm not going to on record anywhere as to (inaudible) the vaccine.

Female: Yes, this is …

(Off-mike)

Male: OK, to go back to all of them, how many things should be all, so let's just close this one out, can you raise your …

Male: Can you clarify that, all four or all three?

Male: All four.

Male: All four.

(Crosstalk)

Female: I'm sorry. I just (inaudible) ask if we should account for Tdap.

Female: I mean if we're going to make the argument for hepatitis C, then we are for Tdap.

Male: That all (APIV) that makes it simpler. How about all (APIP) recommended, how many are in favor of that. So let's see, one, two, three, four, five, six, seven, eight.

(Off-mike)

Male: Anyone who thinks it should be as one hep B?

Male: Can you send the message (inaudible).

Female: All righty, we want a good go at it, probably time for a break. Let's just see, operator is there anybody in the phone that wants to make public comments.

Operator: To place a comment at this time, you may press star then the number one.

There are no comments at this time.

Female: OK, great, I don't see any in the room. At this point I think it's time for a break. I scheduled for 15 minutes, so let's try and reconvene that too long after 4:00 for the last hour. Thanks everybody.

(Off-mike)

Male: Can I drag folks back to the table?

Female: OK, we're in a homestretch for today. We had one more like preliminary question that we asked you, and that was about immunization information systems and the use of immunization information systems. And so, I just wanted to be sure we covered all of the work that you did. As you can see, again, we're – we see support for a couple of things around immunization information systems and they don't want to see the answer options or, by no means, comprehensive, but they are the kinds of things that you might think about creating some kind of measures around immunization information system. And that was – it was, you know, a measures net arena where a priority in our earlier discussion.

And so, we see that measures of other vaccine providers, the non-traditional providers particularly, submitting adult immunization information to information system. And, you know, a measure of that, it seems to be quite popular. A measure of the proportion of providers submitting adult immunization information be an EHR or other means, you know, whether it's a meaningful use kind of situation or another kind of submission, whatever is possible in that particular locale. We'd also support less so for measures of states that track adult immunizations in their registry.

So, just as we've discussed some of the others, I'd appreciate hearing your thoughts around whether you would want to promote measures in this room as well.

Female: So, I don't know if this would drive behavior, but I really feel like this comes back to the patients and whether or not do we see abilities that increase the number of patients control electronic medical records because I think it's – I just feel like at the end of the day, we're still going to end up with all these things that don't talk to each other, really if the patient could carry around their (inaudible) which, you know, is there a second (inaudible), if we could encourage the development of that technology, I feel like that's really (inaudible) for all sorts of other aspects to people's healthcare not just vaccines but …

Female: So, you're specifically talking about patients having access to the information that's in on the information system?

Female: That and the patients being able to put their information or, you know, giving credit into patients or health centers or health systems that encourage patients that take ownership of their health information, and in that, would be the ability to put in your vaccine information and we can know what your information is because, you know, we're all under the same constraints and my concern is that even if you, you know, get this situation there's a national registry, I guess that will help because presumably all these other providers will, you know, for the information (inaudible) registry.

But the other way around that is you don't have to worry about if the patients are (inaudible) the patient would still put in the information or when she is (inaudible) the bar code from, you know, the vaccine that she got (inaudible) as opposed to sort of (inaudible) know what they got whether on the (lot) number.

(Off-mike)

Female: So, those platforms exist, but it just, there's not a lot of – I don't feel like there's a lot of incidence to include that.

Male: To follow up on (inaudible), the – I'm sorry, Shary.

Shary Jones: No, that's OK.

Male: Just to this quick comment. Just (inaudible) even Canada has a great app that does (addressing) that, that (inaudible). It's Canada.

Male: Can we use it?

Male: Nice question, can we use it?

Female: Hi, I missed out most today because I had instructions met too, so both for this thing here, I guess I couldn't, you know, end the day, but I don't have much to add but I will say that in (inaudible), we really think that the registry, just like everyone here, it's a way to go and it's a way to – the measure impact with adult immunization. And right now, I know we're still trying to get our hands on everything with healthy people, 20-20. We don't have a measure right now for adult immunizations. We have a lot of data with children, we have a lot of data with (inaudible) with children, but we still don't have it with adult immunization.

So, I'm thinking that this might be a way where we can see – go back to the matter of what measure – what this measure has done, and by now we don't have anything for adult immunization.

(Patrick Woodcomb): Hi, (Patrick Woodcomb) from Merck. I wanted to piggyback on some of the ideas a little bit and wonder if immunization information systems can be used in a way that CMS is envisioning working with registries and other disease areas now, heart disease and others where the registries are actually the data source and report out the quality measures themselves.

So, I could – you could see IIS is just being a common repository for the information that can flow in from pharmacy and DHRs potentially that might allow you to get around some of the data sourcing issues that the IIS were agreed upon at the data source for the measures themselves. So, not so much into subject of a measure but what's behind the rates and the data sourcing.

Female: (Inaudible) had a comment. The CDC annually publishes the status of IIS by grantees – by grantee states measured against – the status of IIS by grantee states measured against standards that should serve as the basis for a quality measure, perhaps it can be strengthened.

Female: Why is everyone looking at me? No, I think the comment I was going to make is, yes, there are standards and I ought to know that I don't precisely who has put those standards in place. I don't know if it's (ARA) or another organization, but we probably would want to look just because there are certain standards that there's an annual measurement for achieving and maybe the standards don't cover everything we would want, but to an extent, there is a level of quality measurement at the national level for a lot of these things.

There's lot of conversation this morning about immunization information system. So, the variation amongst states …

Female: Yes, and I know they've talked a bunch about mix this morning too and just to kind of go back to – someone else also mentioned that meaningful use is incentivized for the provider not necessarily for the IIS. And the reason – the only reason we've been able to get all of these different specialty providers, (Nick), you know, whereas the emphasis of H1N1 and then various prevention public health fund grantee (pads) and that kind.

So, while I would really like to vote for like, you know, making sure that IIS is our accepted measure from every kind of vaccine provider, I think the funding really need to be there or if it can't happen, this one that we built, we want it to happen, just won't happen.

Reva Winkler: Is this perhaps an area that's more around recommendations than measures? OK, reasonable. Right, because tomorrow, we're going to be talking about, you know, other recommendations, but today, we wanted to get our measure priorities down. So, that's I think the last area.

So, over the break, what we did is we – there you go. We listed the 10 priority areas you guys have identified. And as Ernie said, if you hand me 10, I don't know what to do with them, it's a lot.

So, I think we really want to, you know, think about even further prioritization. This is where perhaps in the short term and the long term and as with any prioritization effort, you know, it's not easy. There are competing priorities, there are – you know, it kind of depends on what you're thinking

about it, I don't know, at any given time. So but we really would like to give you a chance to let us know what you think, you know, would be like your top two in the short term or maybe your top two in the longer term. So …

Female: Out in the context of taking the gazillion that are already out there comparing those then to some small method that someone else does. But, we're assuming that these are just additional measures to someone else harmonizing all the other stuff like that. So, it's just a little hard to come up with the number. You see what I'm trying to speak on.

Reva Winkler: Yes, and this is more limited by development, you know, resources as it will, as opposed to, you know, the cacophony that's out there. I think that it would be others to look at, you know, further consolidation though to the degree that this group can create – can make recommendations around how that might happen. You want to say something about moving towards composite measures and, you know, these – whatever to help the consolidation and how you might want to see that happen.

These are really about measures that don't exist that you prioritize. And so, you know, it's in addition to what's going on but I think also, you can make recommendations that the rest of it needs to be cleaned up as well and reduce the number and harmonize and consolidate and all those other things with that other side. But these are the areas that you've identified as gaps where we currently don't have measures.

As much as HHS is willing to develop measures, they don't have infinite resources or abilities either. Some of these might be a lot harder. You've mentioned some of the challenges for some that may need a little bit further, you know, data something at more long term. And so, what additional guidance beyond this 10, you get your top 10, good deal.

You can – it's like OK, here are our top 10 priorities, let's start with the, you know, it's hard. There's a tendency to want to measure everything because everything is important.

(Crosstalk)

Reva Winkler: And so, but it's not simple.

Litjen Tan: And so when we talk about the composite measure, we talked about the appropriate immunizations with preventive services and then we talked about the special populations. And I see composite measures here for at least two of the special populations already, right? You have diabetes and the CKD SRD. I mean, how is that, you know, that's – how is that not the one topic we talked about, you know.

I mean, that pregnancy is another special population (inaudible) composite measure then you connect chronic liver disease and I would even argue healthcare (inaudible) special population, you know. So you could have to what Bob put it there where it's your composite measure of preventive services with, you know, adult immunization built into that and then your special populations as part of that. And that's your measure and I would be very happy with that but I think that's a (clumping) solution and I don't know for any of that suits your purpose.

Male: I would view that as a recommendation as opposed to an actual new measure to fill a gap. I think it would be perfect the reason we'd have a recommendation that all of the immunization measures be potentially assessed for compositing with other kinds of preventive services specific to that population as a whole but as well as specific priority populations. So I would think that's a recommendation.

Roger Baxter: So, Reva, first of all, you've done a great job today by the way. But, when you talk about harmonization, to me that means giving summary the paring knife, whose got that? Because we don't have it, right?

(Off-mike)

Reva Winkler: As I mentioned, this is sort of an enterprise where it's sort of a big collaborative effort from all sorts of folks who would contribute to this. Now, you actually worked with us the years ago when we actually did some of the initial harmonization work around the measures that they used in federal programs.

And all of the measures that are used in the facilities, hospital level and even the healthcare personnel are all harmonized to the way the measure is constructed. And there are different data sources but the measures are, you know, essentially put together in the same way.

Now whether you want to call that one global measure because it constructs the same, just for each data source (inaudible) this way and nursing home in this way and home health in this way and hospital in this way for healthcare workers, you know, there's a harmonization there.

So whether you call that one measure, five measures, you know, it's more semantics than real. So, the real question is, you know, what is the end goal. Do we want the measures to work together when we have the data so that when aggregation occurs we can start adding things up and making sense of them? If so, you have to come in to plan things in a similar way. You can't be, you know, constructing the measure where you're taking – you're excluding patients at the denominator sometimes then keeping them in the numerator other times.

I mean, you just – you got to pick a way to go. And so, that's really the goal of harmonization. Harmonization doesn't automatically reduce your number but it does try to ask them all to measure something the same way so that when you add this one and this one and this one, you've got something comparable and also people being measured, you know, they know what to expect. And so, that's where harmonization.

Consolidation becomes a different – is a different question and that's – you guys are raising that. It's not the first time I've heard it but consolidation might be sort of unique to this particular topic area because we've got so many, many measures. I mean, 67 measures are influenza. I mean, you know, how many ways they measure influenza. And so, recommendations around, you know, really focusing in on the measures that are of a certain type and try and I don't know where the leverage point is that you (inaudible) the others.

Make them go away and focus in on a narrow group. You know, also there are some measures that still are floating around out there we found in our environmental scan that no longer align with the ACIP. Those need to go away. People don't purge their list. Different organizations that have measures don't purge their list, they don't update them. That's another potential avenue of a recommendation to like, you know, come on, folks.

So, those are sort of the things that harmonization and consolidation can do. One of the things you have to understand is all these measures are owned by different people. They have different agendas for the reason they own those measures and why they use them in different programs that have been around for a long time. We have a lot of legacy issues.

So, particularly around measures, we have issues around trending. If you think collecting data one way for the last 10 years to abruptly change means, how do you compare what you're doing now with what you did then? So, as good as it sounds, it isn't simple. So, you know, we're not going to fix something that took many years to create the conundrum we're in but to the degree that your recommendations can point us in a direction of maybe a simpler system.

A strategy for measurement around adult immunization, that makes more sense and rather than hodgepodge and a little of this and a whole (inaudible) of bubbles, might be more coordinated would be very useful, I think.

Male: I think one simple way would be to say that we think that all old measures should be brought into date with a current ACIP recommendation and that brings up a point for me that a sore point with the diabetes and the CKD is that people don't know how to get the pneumococcal vaccines. And in fact, we haven't had great guidance from ACIP on that but pneumococcal vaccines have to be given in a specific order otherwise, we can mess up a person's immune response to the next shot. And I don't think providers are aware of that because every time I give a talk and tell them, they're going well, that's new to me.

I'd feel like things like that would go a lot farther than some of our measures if we gave the right vaccine in the right order to people and did the right thing rather than more of the wrong thing, that would be great. A little bit of the right stuff is better than a lot of the wrong stuff.

Male: I would generically agree, I guess, that we need to fix our measure so that they more accurately reflect that (inaudible). I was going to put in my two cents about harmonization measures. I think that we have a lot of harmonization and measure reduction activities going on (inaudible). So, I think it's fair to say that we've been offered the (inaudible) it speaks it up but there are people who are looking throughout to kind of help with that process.

The default for us is that we like to be consistent with things, yes. So therefore, the recommendations that you made here will actually help us with our potential harmonization (inaudible).

Female: What makes it hard though is the sets of the immunization numbers are so poor in adult but it's like you feel like you have to have those (inaudible). I mean, it's one thing to sort of there's a gap is very maybe, you know, (inaudible) flu as an example that a (inaudible) flu. There is, you know, 50 percent and we want to, you know, knock on flu and we want to make an 80 percent so we can set out a measures there that we know is going to change that. But across the board they're all horrible.

And so, it makes it hard to sort of choose just a couple of things from there without actually knowing what's the background is and what are those other things that are going to (inaudible) down but I think well, your desire is to make adult immunization better in general. So all of the immunization (inaudible) you recommend we also work and are the ones who have to either pay for the data capture or capture the data ourselves or, you know, just stuck in the room with the patient for eight minutes and trying to explain all this stuff.

So, we've heard of how do you make it not burdensome but is useful especially for something that is so poorly done right now. It's kind of goes

from here to here. We're trying to (inaudible) the ground to some of these factors.

Male: I mean, I think our perception is that there are probably way too many influenza and pneumococcal measures and that we need to pare back on that and (inaudible) then make some space for maybe a couple of these things to be added on and give them more comprehensive package. And I think that would be our idea (inaudible).

Litjen Tan: I will recommend that consolidation is critical but I would like ask consolidation occurs that stakeholders be very clearly informed that it's consolidation because what happens is that, they see a measure disappear but they don't hear about of fact that what's actually happening is that a new measure is going to come and that's going to composite some of these. And obviously, you get a stakeholder letter saying, how can you remove a pneumococcal measure because it's critical.

And so, I think those are the kind of recommendations we should also be providing that consolidation especially has to be very clearly communicated to stakeholders.

Jeffrey Duchin: This is Jeff. I agree with the comments that I just heard and I agree that I think perhaps the most meaningful thing we can do is to improve the state of the art with respect to the already utilized outcome measures by trying to harmonize them and improve the way they are used and coordinate it.

With respect to the priorities, I'm feeling very uncomfortable and I don't know if this is something that is an option for us but I don't feel like I have the data, the evidence base on which to make prioritization decisions for the options that we're looking at, you know, with respect to – I mean, I think they're all important and I think clearly, these are all good things and we can say these are all good things.

But to prioritize and therefore, implicitly suggest that resources should be put into measuring certain things in the certain priority to me implies that we have some criteria or some evidence base that suggest that we're going to get benefit from one that's greater than from the other and I don't really know. I

mean, I can give you my gut feeling which of these I think would produce the most quality or which would have avert the most morbidity. But I don't really know for certain in there.

I think it'd be very important to be transparent about the evidence base that we do in both developing new measures and prioritizing measures. And I don't – I think my conclusion at this point is the evidence, I mean, I don't think the evidence base is out there that allows us to do this. Well, I haven't seen it.

(Off-mike)

Male: So, I know we're vaccinated. This is adult immunization but for me it's the babies that count. So for me it's easy, pregnancy is more important because they've got a long life ahead of them. And so, I'm OK. I'm OK with that. So I find that pregnancy one to be very important. For me personally, I think it's a very a big one.

Male: And then you can go on and say pneumonia is the old man's friend.

Male: Pneumonia is the old man's friend. That's – I won't go that far.

Female: There is good data.

Male: Yes.

Female: So, there is good data for the pregnancy measure.

Male: Yes. Yes.

Female: I mean in terms the vaccination for both flu as well as for pertussis. So, I kind a feel like there is data.

Jeffrey Duchin: All right, can I just clarify? I'm not saying there's not data to support the use of these vaccines. I'm saying we don't have the data that show which is relatively going to give a better bang for the buck in prioritizing the measurements because prioritizing the measurement implies that one's more important than the other and sure, everybody loves pregnant women and children and they fall to the top of any public engagement process you have

about prioritizing limited medical resources. But, it's still not very scientific way of doing things and I agree, expert opinion is the next best thing.

Of course, I think I would also put the pregnancy-related measures at top for that. I just don't feel comfortable that that's a, you know, a really scientific way of doing it.

Male: No. I wasn't pretending and I thought that I was being scientific in the matter. It's really – I used the word feel but …

Jeffrey Duchin: That's not (inaudible). I was just clarifying my own comment. Not criticizing yours, sorry.

Male: Yes. Yes. And Reva kind of just – I thought Reva just kind of wanted to know what we thought. And so, I thought well, you know, I don't – I agree with you, Jeff. I don't see how you scientifically prioritize them. So, I was prioritizing from the guy because we're here and our opinion – they've told us our opinion (inaudible) expressing mine.

My second group would be the – some of the other special groups and I agree with LJ that we have made a big point of these special groups here but I – from – in my practice, the diabetes and the CKD issues are the ones that have the most impact on my personal practice so.

Female: Just a comment from Eddy, he says that he agrees with Jeff that we need a criteria to make a judgment just as NQF uses endorsement criteria to judge a developed measure.

Female: But I think we can't let the perfect be the enemy of the good. I mean, having gone through not even the entire process to develop test and get a measure endorsed. It's a massive amount of work. It takes a long time at it should but, you know, if we say we have to spend our whole time evaluating and comparing the different outcomes and developing criteria then we'll recommend nothing and it's too much to do all ten.

So, we've got to pick something. I also would put pregnancy at the top, it's not because I think the babies are more important than the adult. But for these there's good evidence and you get the two for one protection.

Litjen Tan: A reminder, I think we just went to three hours of doing exactly what we're doing without any discomfort. Now, all of the sudden we have discomfort.

Reva Winkler: We raised – I think we raised a bar on difficulty. The degree of difficulty went up.

Litjen Tan: This is a double back flip (inaudible) with a double twist.

Reva Winkler: Would you be willing to at least give it a try to jot down because (inaudible) why don't you just to grab the (inaudible) over there? We've got a nice little yellow piece of paper but because we want to be able to kind of capture your thoughts on long term and short term. And …

Male: Long term and short term in terms of performance measures?

Reva Winkler: Development of performance measures. Essentially, you know, as …

(Inaudible).

Reva Winkler: Two each. A long term is, you know, they may have some data struggles or maybe some things that need to be put into place to do. We talked about a lot of those but very important but can't do it now and I hate to let it go because I can't do it now. For me that's a long term as opposed to a short term. So, I just like to see where you come down to, you know, reducing this list because, you know, I don't want to speak for Ernie and folks in the federal government. But the reality is we hand them this list (inaudible) they will choose.

Male: Right.

Reva Winkler: And so, this is …

(Off-mike)

Reva Winkler: Or you may want …

(Off-mike)

Female: For the committee's consideration too. Eddy had another comment. From a societal perspective, are there (AGCON) data or burden of disease data that can inform this prioritization effort? So for example, it would seem that composite measures for the client diseases might have a greater impact on reducing morbidity and mortality overall. On the other hand, composite measures are harder to contract.

Male: I have a comment too. Would – I see you put short term and long term here and I find that all that does in my mind is make me go for the first four and prioritize them. I'm not – so I'm not sure, maybe it would be better to try to prioritize them for ourselves instead of because if I divide them into short term or long term I might say the same one twice or. I'm not sure that I – that helps me very much in this.

No. I mean, it may be prioritizing the first top four or five is or do you want to even throw the rest of them out. Do you want to just prioritize all, one to 10?

Reva Winkler: I'm trying to make it simple for you. And let everybody contribute and we'll see if you guys kind of come to similar thoughts.

Jeffrey Duchin: This is Jeff. Well, (inaudible) for prioritizing, I think that the HPV slide should reflect that the ACIP currently recommend catch-up vaccination for women through age 26 years and through men – I mean, for men through age 21 years neither (inaudible) of age.

Reva Winkler: That was just the age groupings we've started out with. We would certainly revise that to the specific recommendations.

So we'll talk about in the morning. We'll see what your reactions are and see where it comes down. And then, we will talk about some of the other recommendations to accompany the set. We want to talk about things like, you know, any recommendations around the harmonization and consolidation. We need the recommendation. Well, OK, we start putting it into words.

You know, around disparities, around, you know, development of EHR or e-measures perhaps, use of immunization information system. So, that may help – you've kind of done a lot of that conversation today so we need to be a little bit more structured into how would we, you know, how might those recommendations look.

Male: Reva, I might mention that there is a consultation going on with CDC right now looking at decision support for EMRs that it was looking at a lot of those issues. I've been involved in that process and we'll be happy to share some of that experience.

Reva Winkler: Good. I think I've got you in that group. So, other than that, we're pretty much at the end of our day. After this exercise we're also naming, you know, counting and seeing what happens in creating a results slide. I don't have anything more for you today. Ernie, Amir? No?

Female: I just like to comment about dinner, we've made dinner reservations at the hotel that you're staying if you are interested. The reservation is for 6:30, the restaurant is called I think (Sochi) and we hear it's very good. Yes. We hear it's very good. So enjoy.

END