QUALITY HEALTH STRATEGIES

Moderator: Janet Jones
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Operator: Ladies and gentlemen, thank you for standing by. Welcome to the Take A Stand Vaccine Standing Orders Benefits Patients and Practices Assess Administer and Document webinar. During the presentation all participants will be in a listen only mode. Afterwards, we will conduct a question and answer session.

At that time, if you have a question, please press the 1 followed by the 4 on your telephone. If at any time during the conference, you need to reach an operator, you may press the star followed by the 0. As a reminder, this conference is being recorded today, Tuesday, May 17, 2016.

I would now like to turn the conference over to Janet Jones, Task Lead for Care Coordination at Delmarva Foundation. Please go ahead madam.

Janet Jones: Okay. Good afternoon everyone and welcome to the Atlantic Quality Innovation Network webinar. This webinar is a collaboration or a collaborative effort between the quality improvement organizations from New York, South Carolina and the District of Columbia. First, we want to thank you for taking time out of your day to join us.

And I want to recognize our communities that are participating today in South Carolina, New York and the District of Columbia. And also recognizes our task leads for each state, (Veronica Pryor) in New York; (Melinda Postal) and (Jennifer Boyd) in South Carolina; and I'm Janet Jones and I'm filling in for (Jennifer Thomas) in the District of Columbia.

Our goal is that today's presentation will be time well spent and offer useful tools on implementing a standing order protocol for vaccinations, at your facilities, and enhance the quality of care, safety and efficiency for your patients and their families.

A few reminders - we will be monitoring the chat room throughout the call so we encourage you to enhance the leading experience, by sending your comments and questions through chat. We will compile your questions and comments for the speaker to address during the Q&A. So let's get started.

Our speaker for today, is Dr. L.J Tan, who is Chief Strategy Officer for the Immunization Action Coalition, which he joined in January 2013. L.J also serves as co-chair of the National Adult and Influenza Immunization Summit which is a joint project with the IAC, the Centers for Disease Control and Prevention and the National Vaccine Program Office.

He was a liaison member of CDC's Advisory Committee for Immunization Practices for 12 years and currently serves on the Adult Immunization Working Group. He has also served as the Director of Medicine and Public Health at the American Association for 15 years - American Medical Association, I think I said that, for 15 years.

And currently serves as editor for several publications, including the Journal for Disaster Medicine and Public Health Preparedness. Dr. Tan comes with a rich history of work experience in the immunization field. And we are honored to have him speak to us today. Welcome Dr. Tan and I'll now turn the webinar over to you.

Dr. L.J Tan: Thank you very much. I'm going to do a quick sound check. Am I coming through okay there?

Janet Jones: Yes. You are…

Dr. L.J Tan: Okay. Fantastic.

Janet Jones: …fine.

Dr. L.J Tan: Excellent. All right, so let me move onto the first introduction slide and just to full disclosure wise, you know, just to let everyone know that, you know, we're not going to obviously be able to go through all the nitty-gritty of how to implement a vaccine standing order, in this fairly brief 30 minute webinar.

My hope is to be able to kind of provide you some justification, some rationale for why standing orders are important, by looking at adult immunization rates and then going through some higher level thought processes with regards to standing orders.

And then hopefully, encourage those of you, especially if you are in the upper East Coast in New York and in the Maryland/DC area, to come to our full workshop for our Take A Stand program, where you will spend 4-1/2 hours really learning the nitty-gritty about implementing standing orders.

So that being said, let me go ahead and in the interest of time - I'm not going to spend too much time on some of these first two bullets in this outline. But I do want to go ahead and kind of review that burden of adult vaccine (preventable) diseases for all of us, so we kind of have a sense for the rationale for why we have to improve, you know, our vaccine coverage rates.

In order to do that I will also obviously provide some review of the adult vaccine coverage rates in the United States, to show you where those lie. And then obviously finally, wrap up by kind of describing the importance of standing orders and how it can improve quality, improve performance, improve patient safety and clinic efficiency and so on and so forth.

So that's kind of what I'm hoping to go through today. So just to start off, here is the burden of adult vaccine preventable diseases. I'm trying to advance this and it's not - let me try to - there we go. Apologies there. I have to use my mouse to click and sometimes I miss that little arrow. So, I'm sorry for that.

I don't intend obviously to go through each and every one of these diseases. But this is a summary of five big adult vaccine preventable diseases in the United States and the burden of disease in the US. And just to keep in mind that if you think about this and you go - you think about the pediatric population, you know, we're doing so well with our pediatric immunization coverage rates that we actually don't have a lot of morbidity and mortality in the pediatric population because of how well we're doing.

And in fact, if you take a look at the numbers of deaths, if you take a look at the cost of disease, you take a look at the burden of morbidity, it actually lies in adults for vaccine preventable diseases. And this - these numbers here are just a few examples. I think flu you all kind of new. If you take a look at

invasive pneumococcal disease, you take a look at, you know, 34,000 cases a year, 3700 total deaths a year. And a lot of those are in older adults.

Pertussis - we know that's a problem in pediatrics, but it's also a problem in adults. And remember, a lot of these adult serve as carriers for infection and transmission into the pediatric population. Hepatitis B - about 20,000 cases annually and with about 3000 acute cases per year.

And of course, if you take a look at zoster, about a million cases of zoster annually, with its accompanying burden of disease since a lot of those cases actually progress into something more serious, called post-herpetic neuralgia.

So just something to keep in mind that the burden of vaccine preventable disease really is in the US adult population now, because of how well we're doing with pediatrics.

And if that burden of disease in terms of mortality and morbidity, is not enough to convince you, for those of you who are number geeks and like to take a look at numbers, this is a publication that I had - that I coauthored that was published last year. And this publication was pretty simple.

What we did was we took a look at the 2013 census for adults 65 years of age and older and we took a look at four of the big adult vaccine preventable diseases which is what you see on the left side of this table, the left column, where it says disease.

What we then did, was based on the data that's out there, so this is all through published literature and the CDC, in terms of incidents, you can estimate the incidents of disease in that population, 65 and older. And you can also estimate the cost of that disease in that population as well. And so we simply

did the math and what you end up with at the very bottom right hand side in red, is the punchline here.

That at least in 2013 and so we think annually, about $15 billion in directly medical and indirect costs are as a result of these four adult vaccine preventable diseases. And if you do the same analysis and you make - and you drop that age from 65 to 50 and so you're looking at 50 and older, you can add another $9 billion to that $15 billion, for a total of about $24 billion in costs per year, because of adult vaccine preventable diseases.

So it's something to keep in mind in terms of morbidity, in terms of mortality but also the costs to the United States health system is remarkable as well. So that brings us to vaccination. And so I'm going to just spend a little time and kind of bring us all into the same level at least, with regards to vaccines.

I don't have to tell you, because if you do pediatric immunizations, if you're aware of pediatric immunizations, the reason why we vaccinate both adults and kids, is because, you know, it is important for optimizing health, for protecting those you vaccinate. But more importantly, you know, because of the community immunity it also protects the others in the community, against the same vaccine preventable disease.

And that's the big reason why we do this. The public health benefits of immunizations are immense. And also just to show you, this is the schedule for the recommended adults. This is issued by the Advisory Committee of Immunization Practices. And it's issued every year. And what you see on this graph is the most recent schedule, the 2016.

I - there will be no quiz at the end of this. I will not test you on whether you can repeat these tables. But this is just to show you that the Advisory

Committee of Immunization Practices goes through a ton of evidence and a ton of data to come up with these schedules.

So these schedules are evidence based. They're based on the latest information, because the committee meets every - three times a year to look at all of the data. And so therefore, you know, to follow these schedules is the standard of practice with regards to adult vaccines. So we have two schedules - one based on age which is what you see up here in front of you.

And as you can see, you've got the vaccines on the left side of the table. And on the top you have the age groups. So these are the age groups for which a vaccine is recommended. And if you look down, if you see a yellow bar that's a standard routine recommendation. That means anyone that's in that age and you see a yellow bar, you're supposed to vaccinate.

So for example, the classic one is flu. You can see flu is recommended six months and older. And hence, across from 19 all the way through to over 65 you can see that yellow bar.

If you see a lavender or purple bar depending on your color and your interpretation of color, what that means is that for that age group and that vaccine, that vaccine is recommended in that age group if there is a secondary - another - a second risk factor, be it a medical risk factor or a job - an occupational risk factor or a lifestyle risk factor.

So this is the age based table. And on the next table this is the risk based table. And you can see that this table is even more complicated when you compare that to the age based table which was not simple to start with. Same thing here - vaccines are on the left. Instead - on the top, instead of age, you now have

risk factors. And so again, the same thing. If you see a yellow bar, what it means is that for that risk factor, that vaccine is recommended.

So again, taking a look at flu so you can see, under the pregnancy you have yellow, therefore it is recommended that you vaccinate pregnant women with influenza vaccine. If you see that same lavender/purple bar, what it means is that for that condition, the vaccine is recommended if they are - they have that health condition and one other risk factor. Okay?

So that's what that purple bar is. But the complex nature of both of these schedules, that's one of the main reasons why it's actually challenging to get adults vaccinated. And we'll talk a little bit about that later on. This next graph is - this next slide is just to kind of show you a quick discussion about vaccine effectiveness.

So we know that the vaccines protect adults. We know that there's a schedule that's evidence based for which to administer these vaccines. And I'm just going to provide you some numbers to show that the vaccines we have actually are effective. But one thing to keep in mind with adults is that, you know, we're used to seeing those 95% effectiveness rates in kids. You're not going to see that in adults.

And in fact, if you are going into this whole equation thinking we're going to get 95% vaccine effectiveness rates in adults, you're going to be very disappointed. You know, as I like to say, my immune system started crashing the moment I went through puberty and turned 18, you know? And so I think that's true. As we get older, our immune system begins to fail.

And so we don't have the same kind of vigorous immune responses that are - that kids have. And therefore getting that 95% effectiveness for adults isn't

going to happen. But that being said, you know, and that's one of the reasons why we, you know, we want to take a look at effectiveness and we want to measure vaccine effectiveness differently in adults.

We don't just want to look at incidents of disease. You don't want to just look at how well does the vaccine prevent disease. We also want to look at other outcomes. And that's why in adults, vaccine effectiveness will vary by the vaccine you're using, the outcome you're looking at, the disease outcome as well as the age and the health of the person that you're vaccinating.

So I'm not going to go through all of the diseases I have on these next two slides - this slide and next one. But I'm going to kind of mention it. So for example, you take a look at the zoster vaccine effectiveness, if you look at incidents of shingles, preventing shingles, it's about 51% effective and that's pretty good.

But if you look at post-herpetic neuralgia, which is the more severe consequence of shingles, it's 66% effective. So again, depending on the outcome you're looking at, the vaccine effectiveness changes. And then of course, if you look at prolonged and extreme cases of post-herpetic neuralgia, you're looking at 80% effectiveness.

Classic of course, is flu. You know, with flu we know the vaccine's about 50% to 70% effective if there's a good match. And the effectiveness in flu vaccine changes depending on whether you're looking at prevention of disease incidents or some of the other outcomes that we're now beginning to look at in flu.

So for example, hospitalization rates - CDC is now doing a lot of analysis on that kind of outcome. How well does flu prevent hospitalizations? And also,

other things that we're looking at for outcomes for influenza include things like visiting a medical - a physician as a result of influenza.

And we're looking at how the vaccine is effective at that outcome as well. So just to reiterate, vaccine effectiveness in adults will vary and it will vary depending on the outcome you're looking at, on the vaccine itself, as well as on the age and the health of the person that's being vaccinated.

And Hepatitis B is another - is the final example. you can see with Hepatitis B - this is one of those highly effective vaccine series in adults; 90% effectiveness after a three dose series. So that's a really effective vaccine in adults as well.

And finally, just to kind of talk about effectiveness in adult vaccination, we don't want to leave out pregnant women. There's a huge emphasis now in trying to improve our maternal immunizations. And the reason for that is because with the two vaccines that are recommended for pregnant women - you take a flu and you take a look at Tdap, those vaccines not only prevent high risk of disease and morbidity in the pregnant woman.

It also prevents transmission of disease to the fetus and allows also a reduction of illness in the first year - months of life of the infants, when they're too young to be vaccinated. And that's one of the reasons when we say vaccination of pregnant women has a two for one benefit. You not only protect the mother, you also protect the fetus. So that's something to kind of keep in mind with vaccination of pregnant women.

And I'm going to run through these next slides just to kind of show you that we are not doing well. Despite all the fact that I've shown you that we've got good vaccines, we've got effective vaccines, we've got an evidence based

schedule, we're not vaccinating our adult population, no way as well as we are vaccinating our pediatric population.

So this is some data from the last four years. You start to kind of take a look. The top bar on each of this, you see the vaccine's on the left. The top bar is the 2014 coverage rates and it goes down to the last four years. And what it - what you're seeing here is that obviously if you look at the coverage rates for the bottom three vaccines, those little bull's eyes are the healthy people 20/20 goals.

And you can see that we are absolutely flat in terms of our coverage rates for vaccines. We have not made improvements in the last four years. And the vaccine coverage risk that we're adding for something as important for pneumococcal vaccine for over 65, which is the middle bars, they're totally stagnant at 60%. They're not moving.

If you take a look at the high risk population that really needs to get vaccinated with the pneumococcal vaccination, our healthy people is 20/60 and we're stuck at 20%. So something to kind of keep in mind with how poorly we're doing with coverage rates.

This next graph is to show you that in people who really, really need to get vaccinated, these are folks with diabetes who we know suffer dire consequences if they get Hepatitis B. There's been a recommendation for them to be vaccinated for many, many, many, many years. And if you take a look at the same data here - 2014 in the purple, all the way down to 2011 in the blue, there's been no movement in these very high risk individuals.

Again, we are failing to vaccinate our adult population. If you take a look at flu, we're slowly inching up in this top bar. You can see here. But again, this

is nowhere near where we want to be for healthy people 20/20 goals. And of course, nowhere where we need to be for community protection against influenza. So again, message is we're not doing well.

And there are some consequences when we don't immunize our adults. The big one is there's a disincentive for manufacturers to enter the market. And this is something to keep in mind. A lot of people are uncomfortable talking about this. But I think it's important to remember that adult vaccines exist in the free market enterprise.

And if you think about the fact that if we want all of these new vaccines that are in the pipeline - we've got West Nile in the pipeline; we've got Hepatitis C in the pipeline; we've got RSV in the pipeline, manufacturers are going to be very disincentivized to bring new vaccines to the market if they feel that once they do so we don't use them; we're not able to vaccinate; we are not able to show that we can vaccinate our adults. So that's important.

And then the other final two points are important too because it's about patient health. When you have chronically ill people that need to get vaccinated and you're not doing well in general, these folks suffer even more, because they're the ones that get even more neglected.

The same thing appears - applies to disparities. When you have a poor effort overall, those who are in the lower socioeconomic strata will tend to suffer most. And again, that's why we have these huge disparities in our adult immunization rates. You don't have to memorize this. Take a look at it.

Everywhere you see a red that's where there is a disparity in adult immunizations. So again, we are not doing well with adult vaccinations. And I

think one of the biggest reasons why we need to do better is because, you know, Benjamin Franklin said, by failing to prepare we're preparing to fail.

And I think when we cannot deliver vaccines to our adults, for example, flu - six months and older is the recommendation, I think it leaves us vulnerable when we need to be able to reach 250 million adults with vaccines and medications. A classic example is pandemic influenza.

And I like to say our failure to successfully immunize our adults in healthy times, predicts our failure to immunize them in times of a crisis. And I think that's a very important reason for why we need to do better with our adult vaccines. This slide kind of summarizes a lot of the data that's been done. We know we don't do well and we know there are reasons for why we don't do well. And this slide kind of summarizes some of those reasons.

I think this is the reasons why we want to do things like standing orders, because it takes us away from the barriers and moves to its actions that can actually improve that. So these are some of the factors. I'm not going to go through that. I think many of you can - have heard of this for like patient factors with adults. It's a matter of convenience.

A lot of patients just don't have good access, convenient access. They have competing socioeconomic demands and so they just say, you know what, it's a vaccine. I don't need it. Right? I'm not going to worry about it. There are provider factors. You know, the number one reason of why someone gets a vaccine is a provider recommendation.

Yet what we're seeing is that a lot of providers don't vaccinate. And remember, a lot of our adult populations don't see primary care providers, they see specialists. And a lot of those specialists, do not offer vaccinations.

And I think that's one of another big challenge that we have. And finally, there are system factors.

We don't have those requirements for vaccinations such as, you know, we have for our kids for school entry. Right? And while the healthcare industry has begun to put in some requirements from influenza vaccination, we know that most employers don't have that.

And then finally, as I mentioned earlier, we have that very complicated adult schedule, and that makes it challenging for people to kind of understand, who am I supposed to vaccinate; how am I supposed to vaccinate them; and when do I vaccinate them? And so all those questions pop up. And so for that reason, you know, we have a challenge. And it's one of those factors associated with low vaccination rates.

But that being said, we do have some opportunities that are at the bottom half of this slide. You know, we do know that when medical providers recommend a vaccine, most patients are willing to get vaccinated. And we also know that the primary care providers in particular, do believe that immunization services are important and it's part of what they need to be doing.

It's the challenge of making that happen. And what we do know also, is that what makes it happen is a systematic offering of the vaccines to the patients. And one of the ways that we can systematically offer vaccines, is for example, through standing orders. And that's one of the reasons why I'm here, is to talk a little bit about that.

That being said, let's give you some evidence for some of these strategies that we know work. This is for the United Community - United States Community

Services Taskforce. This is the call - the partner for the preventive services taskforce. Except they look at community services.

And they took a look at over 29 studies and did a meta-analysis to kind of identify what interventions would work with healthcare providers or systems with regards to improving immunization rates. And as you can see here, everything that you see in red is something that works.

What's in black which is provider education, when you do it by itself, they can concluded there was not enough evidence for that to show that it actually worked. The middle one - standing orders, recommended with strong evidence. Something to just kind of keep in mind as we go forward.

This is another piece of work that was not done by the Community Service Taskforce but it was done and published in the Annals of Internal Medicine. And they did analysis, again like the taskforce, they did an analysis of all the interventions that work with adult interventions.

And again, top of the list it surfaced with a huge alteration of 16.0, was organizational change. Again, that's a systematic change they were talking about earlier. And this is again, as you can see there, standing orders comes to the top again, as one of the big interventions that you can do to improve adult immunization rates, and is supported by data.

The final thing I want to mention at this part of the talk, is to remind folks is that we have actually new standards for adult immunization practice. This new standard of care was issued by the National Vaccine Advisory Committee. You can see the whole document on this link at the bottom of the slide.

This was issued back in the September 2014 from the National Vaccine Advisory Committee which advises HHS on immunization policy. And this new policy acknowledges some of the barriers that we've talked about. The fact that adult patients don't always see primary care providers.

They may see specialists. There's an issue with stocking of vaccines. There are a lot of convenience issues that access is important. And assessing and recommendation of vaccine is important. And recognizing all those challenges that we talked about earlier, NVAC issued the following new standard.

And this standard basically says that no matter who you are - it doesn't matter whether you're an immunizing provider of care to adults or a non-immunizing provider of care to adults. As long as you see an adult patient, you're supposed to do these four things. It doesn't matter if you vaccinate or not. You're supposed to do these four things.

First, you're supposed to assess the status of the patient; you're supposed to strongly recommend that vaccines that are needed; and then if you can, you're supposed to administer the vaccines so you don't miss the opportunity. But if you're not an immunizing provider, you need to refer that patient to a provider who will immunize.

So you need to send that person to someone you know immunizes. Not just send them off and let them go. You need to make sure that they go to someone who immunizes. And then the onus is on you to document that the patient ultimately got the vaccine, into your EMR as well as into the immunization registries. So this is the new standard of our adult immunization practice that's been issued.

So here is where we are, right? We've got that burden of disease. We've got low vaccination coverage rates. We've got data for the different types of intervention that works. And we have these new standards for adult immunization practice that emphasizes the importance for assessing the need for vaccinations and giving those vaccines. So how can we make that happen? And this is what we can do.

You know, we can talk about implementation of standing orders. And our program - the Take a Stand program which you see here in the bottom of the slide, is the first of its kind, national initiative, to try to help medical practices and systems implement vaccination standing orders.

And that's what I'm going to spend the rest of this talk kind of going through and that's highlighting why standing orders work, why they're important, kind of give you that data, kind of give you that information so that you'll feel an incentive to come to our workshops - we've got one in Baltimore; we've got one in New York City in June - to kind of learn the nitty-gritty of how to make that happen. So what exactly are standing orders? So this is the technical definition of standing orders.

They're written protocols that are approved by a physician or another authorized practitioner that allow nurses, pharmacists or any other non-physician healthcare personnel, as allowed by state law, each state has different laws and our workshop actually goes through the laws for the different states, to assess a patient's need for vaccinations and takes that assessment component. And then also to administer the vaccine without a clinician's direct involvement.

So what this allows - standing orders allow you to do is to empower somebody to assess and administer the vaccine without the individual

involvement or direct involvement of a physician. And this therefore, allows you to streamline the practice of immunizing patients in your practice. It changes it into a program. And this is what it does.

It (scrutinizes) - this is the second bullet. It (scrutinizes) vaccination to make it a program rather than relying on an individual clinician's order for the dose of vaccine. And by doing that, you not only empower your nurses, you know, other legally qualified (staff), to manage that vaccination program.

You reduce the missed opportunities in your practice and significantly you free up that clinician's time to do something that is more to the level of their degree or their qualifications. So this allows everybody to perform to the top of their degree qualifications.

Who recommends standing orders? This is the data. Again, the Community Preventive Services Taskforce. I mentioned that earlier. They looked at 29 different papers and they said they recommend standing orders to increase vaccination coverage rates in adults and children, on strong evidence of effectiveness.

The Advisory Committee on Immunization Practices also recommends standing orders. In fact, they - I think I have that up here. This is the document from the ACIP that recommends the use of standing orders. And in addition to the ACIP, the Centers for Medicare and Medicaid Services, also recommends the use of standing orders. This is a memo from 2002.

They've been recommending it for a long time now, to improve adult immunization coverage rates and in this case specifically, for influenza and pneumococcal vaccination. So standing orders are well supported. I have some quotes here from some very - from some distinguished individuals.

Richard Zimmerman has been doing studies in standing orders for a long time now. And Dr. Richard Justman is the National Medical Director for UnitedHealthcare, one of our largest paying systems. And they also are very strongly supportive of the use of standing orders.

So not only are they backed up by evidence as you saw from ACIT, CMS and the Community Services Taskforce data. They are also backed up by high level thinking individuals within our immunization stakeholders. So finally, I'm going to just kind of run through what a standing order should do.

And you can see, if I run through this, we actually go through each of these elements one at a time in our workshop in great detail, so you can understand it better and learn how to implement. But this is what a comprehensive standing order should actually include. And as you go through this, you can see why by having this standing order, you've taken - you allow someone to run the program.

You take the assessment; you've taken the vaccination administration and by using the standing order, it allows that person to perform and make that happen. Now standing orders are not going to work for 100% of all patients.

Obviously there will be some folks with a more complicated medical history that will have to be pulled out of the standing orders program and referred to the next level of assessment. But for most patients, the standing orders should work. So these are the components that are part of a standing order. The standing order will tell you who's targeted to receive the vaccine.

The standing order will also tell the person running the program, how to determine if a patient needs or should receive that vaccine. That means

whether their indication is contraindication precautions. The standing order will also guide the person running the program, to provide the VIS which is the federally required information.

And then the next part of the standing order will be a little part of it that tells you how to prepare and administer that vaccine. So for example, vaccine name, the schedule, the appropriate needle size, so on and so forth. The next part of the standing order will then tell you how to document that vaccination once you've given it in the patient record.

The standing order will also advise the person managing the program on the protocol, in case, heaven forbid there's some kind of medical emergency that might be related temporarily, to the administration of the vaccine. And I say temporarily, because as we all know, you know, association does not mean causation.

And then of course, if you do have that, how do you report it? That's another component in the standing order. You need to report those adverse events. And then finally, at the very bottom of your standing orders, they tend to be about two to three pages long, there will be a box where a physician or some other authorized practitioner in that state, by that state, will sign off and says this is the standing order.

And once that standing order is done, the person running the program is free to obtain the vaccine, assess the patient and vaccinate the patient. And therefore, taking the individual clinical decision making from the physician, out of the picture.

So are they effective? This again is just some data to convince you all that they are. I've already kind of gone through a lot of this. But just to remind

folks that based on that 29 studies that the Community Services Taskforce looked at, when used alone, with nothing else, standing orders increased adult vaccination by about 17 percentage points.

If you use a standing order with some other intervention, so for example, things like improving access, simply just allowing more access, holding after hours clinics, because you can now do that if you have a standing order. Because you can now have a nurse come in and do the - do an immunization clinic on a Saturday, on a Sunday. Right?

This is what standing orders allows you to do. If you do that, with the standing order, you improve vaccination rates in adults by a median of 31 percentage points. So they work. The numbers bear that out. The other thing also, based on the same studies, they work in different clinical settings. This is the second bullet down here.

And they also are effective for kids as well as for adults. So that's what the other thing that was shown by the Community Services Taskforce. Here is some more data to show you, hopefully convince you this works. This is from an older study. In this study, on the left hand side, you have two practices that did no standing orders for flu. And you can see their coverage rates in their patients was about 38%.

Two practices were then (allowed) - implemented standing orders for influenza and you can see their percentage coverage rates went up to 63%. More recent data, because you're saying oh just show me something more recent. This is 2013 data that was presented in the 2015 NFID Clinical Vaccinology Conference.

This is a large health system - Denver Health in Colorado. And they decided to implement standing orders for adolescence on all of these vaccines you see on the left. What I want to point out is the second column which is the national rate and take a look at Denver Health's rates. Standing orders work.

And then you can say so what's in it for me, if you're a medical practice? Why should I do standing orders besides all the wonderful things I already showed you with regards to patient safety, improving quality, improving obviously coverage rates, so therefore you reduce disease. Beyond all of that, what else is in it for me?

I would argue efficiency is a big thing. Because right now you've now freed up that physician time. That clinician time is no longer required to assess vaccination needs individually and issue verbal or written orders individually to vaccinate. You've taken that out and you've made a program. And by making a program you now empower others to take charge of that program and make vaccination happen.

If you are not into efficiency, if you want to just think entirely about income, one of my arguments is that if you vaccinate more patients you can reduce - you can increase your volume. You can start leveraging your opportunities of scale. And you can see better income. So that's something else that you can do as a result of standing orders.

And I would argue beyond the efficiency, beyond the improved revenue stream, beyond the quality improvement work that you feel you have to do, the number one reason why I think we should be doing standing orders to improve adult vaccine coverage rates, is patient safety. I think it's a clear thing.

If you improve your vaccination coverage in your practice, you're going to see less vaccine preventable diseases. You're going to see healthier patients. In general, if you vaccinate a patient who has cardiovascular disease, with influenza and pneumococcal vaccine, they're going to see an improved patient safety and improved quality of life.

That has been shown over and over in the literature. And I think that's the number one reason why we want to be doing this. But that being said, I know I've given you a lot of data why we should be doing this. The data also indicates that we are not doing well. Forty-two percent of physician practices report using standing orders for just flu.

And then when you ask them about flu and pneumococcal, that number drops 23%. We are just - like our adult vaccine coverage rates, we are not vaccinating using standing orders, even though we know the data suggests and indicates that it does indeed improve rates. And Rick Zimmerman who is one of the persons I quoted earlier on, has done a lot of work into trying to figure out why.

And he has shown that the lack of standing orders implementation is generally due to some - multiple factors including weak or no organizational support. So if you think about a delivery system - if there's no buy in from the quality officer or the CMO, the Chief Medical Officer, the physicians in the practices in that system, are not going to feel empowered to do a standing order.

So there has to be organizational support. And then obviously there are some people who are concerned about legal ramifications of standing orders. And indeed there are some legal issues that need to be discussed and worked through and that's what we do in our workshop.

We help work through some of those legal ramifications. I note that the adult immunization statement of past task work in your statement of work is very much about implementing evidence based practices and systems changes. For example, standing orders to improve routine assessment of vaccine - a patient's vaccination status.

And I think this is where obviously a lot of collaborative - a lot of our collaborations can come into play. Because we have an initiative out there called the Take A Stand Initiative. We are going across the country and we're going to the Pacific - I'm sorry, not the Pacific - the Atlantic Northeast. We're going to Baltimore, we're going to Philadelphia, we're going to New York, we're going to Boston in June, to help practices implement those standing orders.

So this is not about, you know, if you go out and you ask practices, do you have standing orders; almost all of them will say of course we do. But then if you go and ask them what do you mean by that; what they'll tell you is that they have a standing order sitting on a bookshelf in a, you know, in a book on a bookshelf. And that's all.

What we're about is going to these practices, saying take that off your bookshelf and let's make it happen. That's what our initiative is about. It's making it happen. These are some pictures of folks that are very involved. I think (Robin Vanoss), who is our senior project manager, is on the call as well.

And you see me on the left there. this is a much more flattering picture from four years ago. I am now much grayer. But other than that, I think what I'm going to do here is I'm going to show you a flyer of our upcoming four

workshops in our program that's coming to as I said, Boston, New York, Philadelphia and Baltimore.

And I think I am going to go ahead and stop here. You know what, this is an agenda of what the workshops look like, just to kind of let you all know, in case you are interested to turn (it). I know I'm at my 30 minute point now, so I want to kind of go through this fast.

As you can see, this is the nitty-gritty. I've given you a very high level discussion. This is the nitty-gritty. We talk about why standing orders work. We talk about the state laws. As you can see, this is from a Florida workshop. And as you can see, we then spend a significant amount of time led by brilliant Bill Atkinson. Many of you know him from the CDC.

He's now with us on the standing orders project. And he talks through hands on working through the implementation guidance. We have guidance on how you implement standing orders. And we work through that so that you can understand the nitty-gritty. We want to make this interactive. We want this as a training workshop.

And the feedback we've been getting, if you go to www.StandingOrders.org, you'll see that we've been getting very good feedback from practices who have participated. So we're mindful of our 30 minutes.

I'm going to go ahead and stop you with this final slide that highlights the fact that if some practice - if a practice comes to our workshop, we will provide one year of follow up support to all of the practices that participate in our standing orders workshop. And that's free follow up support so that, you know, they don't feel like they've - they're out there on their own.

I think what I'm going to do is go to my final slide here very fast, just to kind of show you some of the testimonies that we've gotten on this and kind of keep this on the screen while I stop. So I'm going to stop here. Thank you very much for your attention, for participating. And I'm happy to take questions.

Janet Jones: Dr. Tan, thank you so much for such a wonderful presentation. (Nelson), could you instruct the listeners how they can get in queue for questions right now?

Operator: Thank you. Ladies and gentlemen, if you would like to register a question, please press the 1 followed by the 4 on your telephone. You will hear a three toned prompt to acknowledge your request. If your question has been asked by another and you would like to withdraw your registration, you may press the 1 followed by the 3.

If using a speakerphone, please lift your handset before entering your request. Once again, to register a question, it is the 1 followed by the 4 on your telephone keypad. Once again, ladies and gentlemen, to register for a question at this time, you may press the 1 followed by the 4 on your telephone keypad.

Dr. L.J Tan: I think I overwhelmed everybody with the data.

Janet Jones: I think you did a great job. Maybe you did such a great job that they don't have questions. One of the things I was thinking about in this - I have zero knowledge with this, but the legal ramifications. You mentioned that a lot of folks are concerned. What are the areas that are - what things do you see there and the legal ramifications of having a standing order in your practice?

Dr. L.J Tan: Yes. So the…

Janet Jones: Why would a person be concerned?

Dr. L.J Tan: That's a great question. So there are two different independent legal ramifications. First, it's a liability. And in our workshop we actually talk a little bit about the vaccine injury compensation program so that people/practices realize that they're protected by that program from liability.

The medical liability question we kind of immediately address and take it off the table. The second one that's addressed in our session 3 is for the specific state - who's authorized or who is not authorized to do standing orders, to implement standing orders?

And the big question that we've been addressing throughout all our workshops, is the idea of medical assistants. Can a medical assistant perform a standing order? And again, it is state specific. So, you know, depending on the state you are, absolutely. Depending on some states, not so clear, but we give some guidance as to how that might be interpreted and so on and so forth.

So that's the kind of legal stuff we work through in our workshops - firstly, the liability which we deal with right away. And then we work through with (Alexander Stuart) who is our expert from George Washington University, the actual state law as to what is the scope of practice that can be used or - for an implementation of a standing order.

Janet Jones: Okay. Thank you. And then one last question from me, if no one else is on the line. (Nelson), do we have anyone in queue? Are we good?

Operator: I'm showing no one in queue at this moment.

Janet Jones: Okay. The other thought that I had, I know with children when you're immunizing, parents are always concerned about all the issues that come up with child immunizations. Do you find that that's the same for adults in the adult population? Do you think that carries over to some of the fears for adults getting immunized?

Dr. L.J Tan: So that's a great question. You know, the interesting thing is that the data suggests that it's not the same fear in adults. Adults are very - they worry about it for their kids and I think that's because the, you know, the autism scare was so pervasive and so strong, even though it's entirely false.

I think that carried out - that, you know, that was very much part of the pediatric concern. For adults in general actually, when they receive a recommendation, the data is pretty clear. You know, 85% of adults who receive a strong recommendation from their providers, get vaccinated. And this is even true for pregnant women.

There's a great - there are a couple of great data that's in the MMWR from CDC that looked at influenza immunization coverage in pregnant women. When they received a recommendation from their provider to get the flu vaccine, they were five times more likely than someone who just received - who did not receive any kind of information, to get vaccinated.

So I think this is one of those clear incidents where adults tend to listen to their provider, if their provider comes out with a strong recommendation. They tend to get vaccinated even if they're pregnant. The fear of vaccine safety tends to exist in the pediatric population more than in the adults. Now that's not to say it's nonexistent. That's not to say it doesn't exist. But it's much less.

Janet Jones: Okay. Thank you so much. And one last check. Any questions - anyone in queue for questions (Nelson), before we end our call?

Operator: I am showing no questions at this time.

Janet Jones: Okay.

Dr. L.J Tan: I want to offer the opportunity to take questions in the future. If someone, you know, has a question that they want to shoot you an email I'd be - and you can forward it to me or to (Robin). I'd be happy to kind of address that by email as well. And I know questions sometimes pop up after people stew on it a little bit. So I want to make sure that I don't lose that opportunity to reach out to people.

Operator: And pardon me, we do have a question coming in.

Janet Jones: Oh. Okay, great.

Dr. L.J Tan: Perfect.

Operator: And just as a reminder, if you wish to queue up as well, you may press the 1 followed by the 4 on your telephone. Our question comes from the line of (Cynthia Ewing) with Metro South Medical Center. Please proceed.

Janet Jones: Hi (Cynthia).

(Cynthia Ewing): Hi. Yes. My question is regarding reimbursement with the vaccines. Do you find it difficult to get reimbursed by many of the insurances? That tends to be an issue on our end.

Dr. L.J Tan: Yes. So that continues to be something we discuss in our workshop. It's not something we deal with because our workshop is about, you know, so one of the things that we encourage is that the folks who come to our workshops are people who are already vaccinating. So they already have reimbursement processes in place.

So generally the questions we get from our participants is about the adequacy of the reimbursement. And we recognize that is a challenge nationally for all immunizing providers. It's not just, you know, whether you're doing standing orders or not. We know that the Affordable Care Act obviously has removed the cost barrier for patients.

But one of the things that we work on nationally at the policy level, is with payers to make sure that providers are reimbursed adequately for the services they provide. That remains to be a challenge for some providers over others. Some providers are very good at making reimbursement work for them and they can actually make money doing adult vaccines.

And the reason for that is flu and pneumococcal. Flu and pneumococcal vaccinations for those over 65 are reimbursed by Medicare Part B as in Boy. Medicare Part B as in Boy actually does really, really well in terms of reimbursing. And this is something new to talk about in our workshop.

You know, if you're vaccinating 65 and older you know that the administrative fee for Medicare Part B tends to hover nationally at about $25.00 per shot and the vaccine is also reimbursed at 95% of what we call average wholesale price, which we know is significantly higher than the actual retail price that many providers pay.

So you can actually do well doing Medicare Part B vaccines, B as in Boy. And so we do discuss this in our workshop a little bit. But payment continues to be an issue for all providers for adult vaccines. And we're - we have a lot of policy work that comes out of another program that we run through the IAC called the National Adult and Influenza Immunization Summit, that looks at those payment issues.

So I know I didn't totally answer your question, but I hope I reassured you that nationally there's a lot of policy work to talk about the adequacy of reimbursement.

(Cynthia Ewing): Yes. Good to know. Thank you.

Janet Jones: Okay. And no other questions?

Operator: I'm showing no further questions at this time.

Janet Jones: Okay. Well Dr. Tan, thank you so much for taking time out of your schedule to give us such timely information. I know everyone has busy days so we'll try to give you back some of your day, about ten minutes in your day. And we're asking that before - at the end of the webinar that you take a few minutes to complete the evaluation survey.

That helps us in an effort to continue to provide content that meets your needs. And I hope that a lot of you will take Dr. Tan up on his offer. If you have questions after this, please contact either myself, Janet Jones or (Kiona Shaw) at Delmarva Foundation and we will try to route the information to him. Thank you all and have a great day.

Dr. L.J Tan: Thank you all for the opportunity. Bye-bye.

Operator: Thank you ladies and gentlemen. That does conclude today's webinar. We thank you for your participation and ask that you please disconnect your line.

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