



CDC Webinar – #HowIRecommend Flu Vaccine: How to Make Recommendations that Matter to Patients

Webinar Held: December 12, 2018

Transcript

John Donovan speaking:

[SLIDE 1] ...the season, and beyond. We also know that recommendations from healthcare providers make a huge difference on whether or not Americans get vaccinated against flu. We wanted to take this time to craft a discussion surrounding why flu is such a dangerous disease, how flu vaccines are so important, and the process of talking through a flu vaccine recommendation with your patients. We're also going to briefly discuss how to administer a flu vaccine after giving a strong recommendation. Now with that in mind, I'm going to introduce our speakers for today.

[SLIDE 2] Alright, there we go.

[SLIDE 3] First off, we will be having Dr. Melissa Rolfes painting a picture of flu burden in the United States, and the many positive impacts of vaccinating against flu.

[SLIDE 4] Second, we will have Dr. Sandra Leal discussing how she recommends making a strong and effective flu vaccine recommendation to your patients. And to close out the webinar, we will have JoEllen Wolicki talk through how to properly administer flu vaccine. She'll be also sharing a few related resources. At the very end, we're going to have a Q&A section, and we'll be sure to get to all your questions after the call that we can't answer and so Kathleen if you want to go back a slide and just go through the quick housekeeping slide, that would be great.

Kathleen Amos speaking:

[SLIDE 3] Absolutely. Thank you John, and thank you all for joining us for today's webinar. As we get started, as John mentioned, we wanted to go over just a few housekeeping items. On the slide you can see an image of the attendee control panel, which you should also see on the right side of your computer screen. This control panel is your hub for interacting with the webinar.

So first, in the control panel, you should see an audio section. You have two options for accessing audio for this webinar: listening through your computer speakers or calling in over the phone. If you are using your computer speakers, please choose the computer audio option. If you are using your phone, please choose the phone call option and enter your audio PIN, which can be found in the control panel. Please make sure to select the audio option you are using, and if you choose to listen over the phone, please also be sure to mute your computer speakers to reduce any echoing. Regardless of which option you choose, all webinar attendees are muted.

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webinar presentation itself, but are in the handout, so if you download a copy of the slides, those links will take you to the additional resources that are mentioned.

Throughout the webinar, please submit your questions or comments for any of the presenters via the questions box in your control panel. Please feel free to send in your questions at any time and we will address as many as possible during the Q&A session at the end of the webinar. If you have difficulty with any of the technology for the webinar, please also use the questions box to send us a message and we will help troubleshoot.

And finally, this webinar is being recorded and the archive will be available following the webinar to you and to others who are unable to join us today.

Thank you very much. I hope you enjoy the webinar.

John Donovan speaking:

Thank you so much, Kathleen.

[SLIDE 4] I also wanted to mention when those of you have questions ask a question, please make sure you state who it's directed toward. We have a few different speakers on this call and they'd be happy to answer your questions that you may have.

With that being said, I'm going to be handing it over to Dr. Rolfes, so Dr. Rolfes when you are ready, please take it away.

Melissa Rolfes speaking:

Great. Thank you, John, and thank you to the other organizers of this webinar. It's really an honor to talk with you today. Like they mentioned, my name is Melissa Rolfes and I'm an epidemiologist in the influenza division at the Centers for Disease Control and Prevention in Atlanta. And today I'll just be talking somewhat briefly about the severity and the burden of last year's flu season – the 2017-18 flu season – and then also talk about the effect of influenza vaccination on the burden of seasonal flu. And we know that understanding the burden as well as the risk of influenza can help some patients and some people decide whether or not to get the flu vaccine, so we hope that this is helpful in that regard. Let's see. Here we go.

[04:17]

There we go.

[SLIDE 6] So the 2017-18 influenza season was certainly remarkable.

[SLIDE 7] Sorry, I'll go back a slide.

[SLIDE 6] It made headlines such as “The Flu Season is the Worst in Nearly a Decade” from *The New York Times*. In Atlanta, one of our major city hospitals opened a mobile ER to treat flu patients, and that's an article from the *Atlanta Journal Constitution*. And in Los Angeles, the *Times* reported medicine shortages, packed ERs, and a rising death toll due to flu.

[SLIDE 7] And at CDC, we use influenza surveillance systems to characterize the severity of each flu season, and this graph shows the overall as well as the age group-specific severity



levels on the y-axis for each season since 2003 on the x-axis. And in the US, we occasionally see seasons that are high or even very high in one age group or another, but in the 2017-18 season, all of our surveillance systems indicated that each age group of the population had high severity, and this is the first time we've seen this in quite a while.

[SLIDE 8] And the severity level, like I mentioned is based on surveillance systems, and it was showing high levels of outpatient as well as ER visits due to influenza-like illness, and we had levels of activity that we had not seen since the 2009 pandemic.

[SLIDE 9] There were also high levels of influenza-related hospitalizations, which you can see here in this graph. And again these were higher than the reported rates that we had seen since the 2009 pandemic, and really since this surveillance system has now started, since this surveillance system started including all persons.

[SLIDE 10] And then we also saw really high proportions of deaths due to pneumonia and influenza. And so it was clear that this was very high impact season.

[SLIDE 11] And we try to translate these rates from surveillance in the proportions into the population disease burden to really get a sense for what's going on. And the burden of flu last season, as you can see from this graph, far exceeded the burden in any season since the 2009 pandemic.

[SLIDE 12] Taking these numbers, taking these sort of burden pyramids, into real numbers, we've estimated that 48.8 million illnesses related to flu occurred last year, and every age group was affected.

[SLIDE 13] We found that the highest attack rates were among adults aged 50 to 64 years, and also in young kids under the age of five.

[SLIDE 14] And from these 48.8 million illnesses, we also estimated that there were 959,000 hospitalizations, and 79,000 deaths due to flu last season. This included roughly 600 deaths in children, and 68,000 deaths related to flu among the elderly.

[SLIDE 15] And last season was a prime example of how widespread and severe influenza epidemics can be.

[SLIDE 16] And we know that annual seasonal influenza vaccination is the best way to protect against flu. The vaccine is imperfect, but it does protect against outpatient medical visits, as well as hospitalizations related to flu, and even severe disease or death.

[SLIDE 17] Preliminary estimates from the 2017-18 season indicated that the influenza vaccine reduced the odds of flu-related outpatient medical visits by 40% overall. Though this effectiveness did vary by age, as you can see on the slide. And here you can see that the range of effectiveness was from 53% in children aged less than nine years to 20% among adults aged 65 and older. And I apologize there's, there is a typo on that slide, perhaps I'll send out a new slide set for people to have the correct numbers there.

[08:38]



[SLIDE 18] But communicating these effectiveness numbers to the public, and even to those medical providers, healthcare providers can be challenging. The effectiveness can vary by season and by population, the circulating virus, as well as the vaccine type. And the vaccine is not perfect, it has modest effectiveness. And so CDC developed a model to communicate and to translate these vaccine effectiveness numbers into the number of influenza-related outcomes prevented by vaccination.

[SLIDE 19] And this is a diagram of that model. It's a simplification, and for more information, you can see Tokars paper et al. in *Vaccine in 2018 [An Evaluation and Update of Methods for Estimating the Number of Influenza Cases Averted by Vaccination in the United States]*; this was just published this summer. And this model moves the population through various compartments based on our estimated attack rates, the vaccine coverage estimates that CDC makes every year, as well as the vaccine effectiveness against circulating influenza viruses. And we can use our estimated attack rates to calculate what the burden in the season would have been without any influenza vaccination, and then we can compare what we observed to what we would calculate in the absence of vaccination, and that's what we estimate is the number of illnesses prevented by vaccination.

[SLIDE 20] Now, unfortunately, I don't have the estimates of how much disease the flu vaccine prevented during the '17-'18 season. We're still finalizing those estimates and we hope to be able to report those on the CDC website and in the medical literature in the coming weeks, but the vaccine effectiveness last season was very similar to what we saw in the '16-'17 season.

[SLIDE 21] And during that 2016-17 season, we estimated that flu vaccination prevented 5.3 million illnesses, which is about the population of the Atlanta metro area. And additionally, vaccination prevented 2.6 million medical visits and also 85,000 hospitalizations related to flu. And this is approximately the same number of hospital beds that are in California and Oregon. And what we would expect for the vaccine's impact during the '17-'18 season is that the number of illnesses that we prevented by flu and the number of hospitalizations that were prevented by vaccination will actually be higher because the burden of illness was much higher in the '17-'18 season compared to the '16-'17 season. So even though the vaccine worked in at a similar level across those two seasons, because we had a higher burden in '17-'18, we do anticipate that the number of illnesses that we prevented is going to be much higher.

[SLIDE 22] And now I'll just spend a really fast minute on what flu activity has been like for the '18-'19 flu season thus far.

[SLIDE 23] And currently, as of the week ending December 1st, influenza activity in the US is low, but it's definitely increasing. There's some states that are beginning to report higher levels of influenza-like illness activity, as you can see on this map, and we do expect this activity to increase over the coming month.

[SLIDE 24] And right now, when we look at the viruses that are circulating, and these are based on data that's submitted to the CDC by the US public health laboratories throughout the country, we see that influenza A (H1N1)pdm09 viruses, influenza A (H3N2) viruses, and also B viruses are currently co-circulating. But, we do see that these influenza A (H1N1)pdm09 viruses are the most commonly reported virus thus far by these public health laboratories, and this is a pattern



that's been consistent across a couple weeks. So we, we, we do sort of see that this H1N1 is being slightly more predominant.

[SLIDE 25] And so with that, I'm certainly happy to take questions after the other speakers have had their turn. So I'll turn it back over to you, John.

[13:05]

John Donovan speaking:

Thank you so much, Dr. Rolfes. It's really helpful to have a picture of flu, and the importance of flu vaccination. We know that this is a vaccine that we have to get every year, so that creates some unique communications challenges, and that is why we have somebody on the phone who has experience with this – Dr. Sandra Leal. So Dr. Sandra Leal, we just really appreciate you being on this call.

[SLIDE 26] I'm gonna move these slides, there we go, move these slides over. When you're ready, feel free to begin speaking.

[13:37]

Sandra Leal speaking:

Thank you so much, John. I really appreciate being part of this webinar. It's such an important topic to talk about vaccinations, and I really want to thank Dr. Rolfes for the information that she shared today. So recommending a flu vaccine is very easy when somebody walks in and asks for one, it makes our lives a lot easier. When we really have the challenge is when we have patients walk in who have some concerns about the safety, some concerns about the vaccine itself and its effectiveness.

[SLIDE 27] So one of the things I want to talk to you about today is just some of the practices that we've been able to implement to really improve these encounters and to really maximize our opportunity to vaccinate people and to really get the most effectiveness out of this season's vaccine. So, just a couple of things that I think about when trying to implement an effective program is practice standards around vaccination rates. So a few of the best practices that we've noticed have really impacted this is assessing people at every single encounter. Some of the groups that I've been involved with, when we're trying to improve best practices, it's just a simple ask and assessment of the flu vaccine, and actually any other vaccine that a person might need based on the conditions that they're coming up with. But the assessment is a critical component, and getting team members to be able to assess that at different touch points is something that really makes a difference as people are reminding a patient or asking a patient about what they've had or haven't had.

Another key component is to recommend at every encounter. And that is especially important if you have somebody who keeps saying that they're not ready for the vaccine today or they'll come back, but just making a recommendation, and making that essentially as part of the communication, makes all the difference.

One of the key strategies that I use, and I'll show you a couple of slides about this, but it's really about making it personal with the patient and talking about why it's so important for them to be



vaccinated. That personal connection, the trust that they have with you as a clinician or as a provider working with them, that really speaks volumes with them especially if you keep asking the question and really talking about the importance for their health.

If you don't vaccinate, it's very important to talk about referral services or other providers that might be available to vaccinate, and I think about this a lot when I think about, you know, a provider that maybe ran out of a stock of a certain vaccine, or if it's a provider that doesn't vaccinate themselves, it's just creating resources and awareness about where a patient can access a vaccination.

And then the next key critical component is the documentation around the vaccination. How do you have that vaccination documentation with the registries that are out there, having that hopefully bi-directional communication with registries is important so that you have the latest information about what the patient has already had, and then also contributing that information so other providers have that available, as they're trying to assess and make recommendations.

[16:30]

[SLIDE 28] So this next slide really addresses some of the comments that you've probably heard, and there's probably 50 other things that you've heard when patients don't want to take the vaccination. You know some of the common ones are, you know, I don't like shots. This one makes me laugh because I don't think I've ever met any single person who really likes to get vaccinations of any kind or shots in general. So, you know, I always really talk and sit and spend the time to understand why they have the perception, why they're denying the vaccination. So a lot of the common ones are that vaccines are not safe, people feel like it's going to not be necessary for them because they never get sick. So whatever that concern is that they're expressing to you, it's really just sitting there and listening to them about why they have that concern, and then just, again, assessing and discussing with them why this is maybe, you know, something they should reconsider. I think, you know, some of the other providers around the practice that I've worked with, they send the people over to me because I've got a very high rate of vaccinations, and it's really because of the time I spent speaking with patients and talking with them about that. The other thing that I've really seen improve the ability to vaccinate people is really having that discussion up front before the full visit starts. You know, making that recommendation in the start of the visit, that way you have the time to spend to speak with them in case they say no. So, if you start in the beginning and they say no, at least you have time during the rest of the encounter to just try to assess why not, what concerns they have. If somebody says yes, you know, after that initial conversation, I immediately vaccinate the person right then and there, because sometimes they'll think about it, and then they'll change their mind. So one of the best strategies that I've utilized is just address it right up front in the beginning of the appointment and then have that vaccine done before the appointment continues and that way, you know, it's been taken care of.

[SLIDE 29] So some of the reasons about, you know, why patients do not want to take it. So, sometimes they have beliefs, they have perceived risk, sometimes they have alternative health beliefs. There's even some provider attitudes about vaccinations. But again, the biggest, I think the biggest asset that you have is the time, the time you're spending with people, and then really just clarifying the information. And that really goes to assessing the patient, if you have a

medical assistant, that's working to check the person in, if you have a culture within your clinic setting or within your practice or within your pharmacy where several people are asking the question, I think hearing it enough times and then having those conversations really helps to alleviate some of the concerns, and hopefully, you know, have the opportunity to answer questions about concerns so people don't feel like you're trying, just trying to rush through that recommendation.

[SLIDE 30] One of the things I think about when I vaccinate a person is really closing the deal on the vaccine. I think it's one of the most critical interventions that you can make with a person that will protect them for a season or for the life of the vaccination you're trying to give, if you can actually have that be an intervention that you can make. So, I always, you know, really talk to the staff I work with, and to anybody else, if this is the only thing you can do today is, you know, help somebody get vaccinated and have that protection that they're conferring to themselves and the people around them, you've made a great investment in their health. But some of the important points I always talk about is, you know, what's the most important thing you can do today, and again, vaccination, that's really, really key. I'm always the first one in line for the flu vaccine, and I talk about that all the time. I talk about how I literally, when the vaccine comes out, I'm the first one in line. I always make sure that my family gets vaccinated, and then I always talk about my own personal experience taking my daughter to get vaccinated. And I think that speaks volumes to people when they're hearing that you would feel that the vaccine is safe enough to, to have your own child vaccinated. I don't know if there's anything more, you know, important than selling it in that regard, and I truly believe that, and I think they see that because I speak about it so highly. In fact, I'll show you the next slide, a picture that I share with my patients.

But really having confidence in the product and really talking about why you believe in it is very, very important. And I have had seasons where we have a lot of loss of elderly patients, people that are having chronic conditions that experience bad outcomes. Even with the flu, at least they have some conferred protection hopefully, but we talk about those experiences, and when you've had a season like that, you can't forget it when you've had some people that you've lost as a result of the influenza.

I mean, I really talk about the rapport with patients, you know, just talking to them about how you care about their health. I think that goes a long way that you're really, again, trying to have that encouragement that they take it because you care that they're there, you want to protect them as part of your duty as a clinician.

[SLIDE 31] So this is a couple of pictures, different seasons. This is my daughter sitting with a couple of our local pharmacists throughout the years where she's getting the vaccination, and literally, this is, like, my favorite post on social media; as soon as I get my daughter vaccinated, I post it and I talk about it. And I share it with my patients so that they can see that I really believe in it, and I mean it, and I love, I love these pictures, because they really speak more volume, you know, more words than I could ever, ever share with them if they see the picture. And obviously they see, sometimes they see pictures of my family up so they can see that this is my daughter getting vaccinated. So again, if there's nothing that convinces them, this always seems to do the trick. And it's the same conversation I have with my own family members, my friends,



my social media followers that this is such an important thing, just to keep reminding people, don't delay, get it done, it's a really important thing for your health.

[SLIDE 32] If I can move the slide. So ultimately, it's really the patient's right to decide. They definitely have the right to say no. And you have to honor and respect that, but I think the more you keep asking and just having that conversation and spending the time with the patient really makes the difference. So one of the key things that, that I do is, you know, definitely respect their wishes, but I think if, if you say it enough times and ask. I've had people that have literally said, "Oh, I'm just tired of you asking, just give it to me." And, and one of the things I do is I document that and I remind them, "Hey, remember when you didn't want to take this last year and it, it didn't do anything to you. It worked." I think, again, just bringing that back up and the fact that they tried it. It wasn't as bad as they thought it was going to be. It didn't cause any issues. But just keeping that documentation and having that conversation next year as part of the assessment sometimes helps that vaccine for, for the following year.

[22:55]

[SLIDE 33] So why is this important? I think all of you on the phone probably know why this is important. Aside from obviously keeping the person happy and healthy and, it's about improving the process. Vaccines are such a critical metric for all of these things that we're trying to do with value-based healthcare. We're targeting high-risk patients. We're trying to prevent the significant issues around hospitalization. So anything you can do as part of implementing this through quality improvement programs that target vaccines and information around that – reminder systems, standing orders that facilitate vaccination rates. And then just educating your staff about why that's important, educating the patients that are coming out, in about why that's important. All of these things really encourage improved vaccination rates. This is also encouragement for strong recommendations from the providers and really getting them to use some of those key, those, you know, pearls of what works and what doesn't work, or if you know that there's a strong vaccinator in your clinic or a vaccine champion, you know, that's one of the, the strategies people have used within our practice. They send people to me because they know I'll spend the time to do that because I just think it's such a critical important intervention you can make. So the immunization champions is one of the key strategies that has worked. And then the other thing I always think about, and I put myself in my patients' shoes, is easy access. Can they quickly go in and get a vaccine, or do they have to rearrange their entire life to go and get it? So, one of the things that, as a pharmacist, I think about is that access and how we as pharmacists can partner with clinicians to be able to facilitate that.

[SLIDE 34] This is a slide from the American Pharmacists Association, and it really just shows the, the public health impact that pharmacists are having in being able to vaccinate people throughout the years. So this slide just documents the number of states that pharmacists have increased their authorization on vaccinations, and really since about the '80s, until about 2010, there was a really increased push to improve the ability for pharmacists to vaccinate in 52 states and territories. And since 2007, we had, I'm sorry, yes, 2007, we had about 40,000 pharmacists that were trained to administer vaccinations. Now in 2017, we have over 320,000 trained pharmacists to be able to vaccinate patients. So, that really provides that increased opportunity for access. We have patients that can walk into any community pharmacy, retail pharmacies, grocers, and be able to get that vaccine. And one of the key things that as pharmacists we want



to do is communicate that back to the provider, and that definitely includes trying to update the vaccine, the register, and immunization registries that are out there. But then also just faxing providers and letting them know that we vaccinated the patient and in doing anything to triage patients, if there's a concern about vaccinations, to get that patient back to the clinician and make sure that we're making, we're really acting as part of the healthcare team to do that. So that's one of the key strategies to improve access and to hopefully facilitate people receiving their flu vaccine.

[SLIDE 35] So with that, I will turn it over to JoEllen Wolicki to continue with the presentation. Thank you.

[26:07]

John Donovan speaking:

Thank you, Dr. Leal. I, I'm gonna, I appreciate, I want to say first off, I really appreciate, we all do appreciate, the work you do on the ground to fight flu over there in Arizona. And I want to hand it over to JoEllen, as Dr. Leal mentioned. So JoEllen, when you are ready, the floor is yours.

JoEllen Wolicki speaking:

[SLIDE 36] Thank you so much for asking me to be a part of this really impressive webinar, and thank you to the previous presenters for all that really great information. I just want to take a few minutes to talk about administering inactivated influenza vaccine, and one of the things that I always like to point out whenever I'm talking about this, over this fall, is that there are many different influenza vaccine products available this season. Products can vary by type, the number of strains, quadrivalent versus trivalent vaccine, and then the age indications for the product can vary also.

So, there are, there are four products that are approved for children six through 35 months of age. Previously, we only had one product, but now that there are, now there are four. So, one of the things I also want to talk about too is that the dosage, or the amount of vaccine, that should be given to children six months through 35 months of age can vary based on the product that they are having. So if you have Fluarix or FluLaval in your inventory, the age appropriate dose for a child six through 35 months of age is 0.5mL, but if you have Afluria and Fluzone in your inventory, the approved age-appropriate dose using these two products is 0.25mL. So I will always like to give people a heads up about this, especially mid-flu season where you may have run out of one product and you're going to change and work over to another product, that you want to make sure that your staff has a heads up about this, and realizes that the dosage or the amount of vaccine given in this age group can vary based on the product that you have, or the product that they are administering. For everyone three years of age and older, regardless of the product, when you're administering inactivated influenza vaccine, the dosage is 0.5mL.

All, all inactivated influenza vaccines are administered by the IM route this season. Of course, it's always important to use the appropriate needle length for the age and the size of the person that you are giving the vaccine to, and to always administer this vaccine in the recommended injection site. And for infants and small children, on the vastus lateralis muscle in the anterior



lateral side is the preferred site, and in older children and adults, the deltoid muscle in the upper arm is the preferred site. So, with this, having just mentioned that the deltoid muscle in the arm is preferred for adults, I'd like to take a few minutes to talk about, to talk about shoulder injury related to vaccine administration.

[SLIDE 38] Oops, sorry, went a little too fast there!

[SLIDE 37] So, Shoulder Injury Related to Vaccine Administration is sometimes abbreviated as S-I-R-V-A, sometimes pronounced SIRVA. It's an injury to the muscular skeletal structure of the shoulder including the ligaments, the bursa, and the tendons. This is thought to occur from an unintended injection of vaccine antigen into the bursa of the shoulder, or, and/or from trauma resulting from inserting the needle into and around the bursa of the shoulder. Now, the symptoms of this include shoulder pain and limited mobility after injection.

So, it's very important that, along with knowing the dosage and the age indications and all the particulars about the products that you have in your store, in your vaccine inventory, when it comes to influenza vaccine, it's also very important for your staff to know how to properly inject the vaccine, and to identify the injection site and to put it in the right place, so there's proper landmarks and techniques used to identify the injection site, and the proper needle length. So we, and I'm going to outline these a little bit later on in the presentation, but we do have some health, some educational products and materials that can help educate your staff. It's also very important to watch them give that injection. You want to be sure that you know that they're giving it correctly enough that you, and that's the way that you want it to be.

[SLIDE 38] There is one, there, also available this year is the live attenuated vaccine, FluMIST or LAIV, is administered by the intranasal route. It's supplied in a manufacturer-filled single use sprayer. Key points are that it is to be administered in each nostril and, using this manufacturer-filled nasal sprayer. There is actually a dose-divider clip on the sprayer, so that you would administer up to the dose-divider clip into one nostril, remove the dose-divider clip, and then administer the rest of the vaccine in the other nostril. So this definitely is a vaccine that is supposed to be given intranasally. Do not inject it. We have heard stories of people that were able to attach a needle onto this nasal sprayer, and they have tried to inject the vaccine. But that is not the proper mode of administration, so please make sure that, if you do have this vaccine in your, or this product in your inventory, that you, your staff knows not to inject it. Another frequently asked question that we get about vaccine administration related to LAIV is what happens if the patient coughs or sneezes afterwards, does that dose still count? And yes, it does. So if the patient sneezes after administration, we don't need to repeat that dose.

[SLIDE 39] So, a few minutes ago I promised you some resources for healthcare personnel for their questions about influenza vaccine. And one of the first things I always like to tell people is that CDC has an email service for vaccine-related questions – that is nipinfo@cdc.gov, and you can see it here, that's in the very first bullet.

Education for healthcare provider, for personnel. We have education, educational products with free CE. We have two You Call the Shots modules that – one specifically about influenza and then there's another one about vaccine administration. We recently finished the Pink Book webinar series. We do this series every year, and we take, once a week, from January through September, sometimes even into October, we look at each chapter in the Pink Book, which is



also known as *Epidemiology and Prevention of Vaccine-Preventable Diseases*, and we did do, we recently did a webinar on influenza and that is archived on the Pink Book webinar website. And then we do have an influenza FAQ video that has been updated for this flu season. So, if you want, you want to watch, or you want to show a video to staff during lunch, or something like that, the video is available also.

And then, I wanted to just include in here a very brief list of clinical, of websites and clinical job aids that can be printed out and used in your vaccine prep area to help keep your staff up to date. So we do have a vaccine administration webpage at CDC that includes, that will actually get you to, like, the vaccine administration video. Also includes videos on different aspects of vaccine administration from preparation all the way through to giving the injection and documenting the vaccine. We have some infographics that show how to administer the vaccine. We have one specifically on shoulder injury related to vaccination, and then standing orders are available for influenza vaccine for children and adults through the Immunization Action Coalition. And then we have a couple of other ones in case you, one that I always like to point out is the tools to assist the satellite temporary or off-site vaccination clinics, in case you actually are holding clinics outside of your clinical facility. And then, we have storage labels that will help identify the products that you have within your storage unit to help people.

And with that, I'm happy to turn it over to John, and I would like to thank everybody again for allowing me to participate in this great webinar.

[36:01]

John Donovan speaking:

JoEllen, thank you so much.

[SLIDE 40] Before we get to the question and answer section, I'm going to be going over a few quick additional resources that we at CDC have pulled together to help you when you're trying to make a strong flu vaccine recommendation to your patients, and a lot of it just reinforces kind of what you've heard today.

[SLIDE 41] So first, you probably were thinking, well, why is "how I recommend" a hashtag in that title, and that's because of these videos. So, we have a series of videos called *#HowIRecommend*, and they go through common questions that patients have around vaccination and flu vaccination. And at that URL at the very bottom, you can click on that to go there. There's a lot of videos there – not just flu vaccine videos, but HPV, a bunch of different types of vaccine videos on there, and a lot of different healthcare providers throughout the country giving their best practices, kind of like how Sandra did today, on how do you recommend flu vaccine. So these are really helpful, we've gotten some really good feedback, and they're only around 30 to 45 seconds apiece.

[SLIDE 42] I also wanted to highlight the Healthcare Provider Fight Flu Toolkit. And this toolkit includes a slide deck that I featured a screenshot of here, and many other valuable resources – that includes things you can print off, give to your patients, that slide deck I just mentioned, *#HowIRecommend* videos, there's a lot of different things here that can help.



[SLIDE 43] And one of the main things that I want to call out is the Share Model. So SHARE is an acronym, as you can see here, and it speaks to what Dr. Leal was talking about, really highlighting your own positive experiences; share the reasons to vaccinate, not only for the patient, but for yourself and your family; reminding patients about the efficacy of flu vaccine and why you should get the flu vaccine; you know, addressing the questions, making sure you just walk alongside that patient as they make a decision that they might have great concerns about; and explaining potential costs around not getting vaccinated, because there are those things, and we mentioned on the call, and it is true, it's not a perfect vaccine in the slightest, but having some protection is better than no protection at all. And we saw that in the numbers last year with such a severe flu season and such low vaccination rates, that just results in a really, really perfect storm of just severity.

[SLIDE 44] I also wanted to mention the Digital Campaign Toolkit. Now, this toolkit has many materials you can also print off and share with your patients. And there's posters on there. There's actually an educational children's coloring book. There's also sample social media content, some images and animations you can share online. There's some, also some content that we've posted recently that you can share on Twitter, Facebook, those types of things. And all of our materials can be found at cdc.gov/flu, but the URL is there for the Digital Campaign Toolkit.

[38:50]

Now with that being said, I wanted to give us enough time at the end of the presentation for the Q&A section. And I'm going to, going to look at this chat box and I'm going to pull together some questions for our speakers, so if you have additional questions, please feel free to enter those. And please mention who those are directed towards.

Let's see. Ok.

So, we have, one of the first questions we have, we actually got some questions ahead of time, one of them was please discuss the recent news that is telling patients to wait and not get flu vaccine till November, since the vaccine may not cover the whole flu season.

So, Melissa, would you be able to answer that?

[SLIDE 45]

Melissa Rolfes speaking:

Sure. Yes. Yeah, there's been some recent news about some studies that have come out suggesting that the immunity that you get from a flu vaccination wanes across the season, or declines as the season goes on. We continue to recommend at CDC that people receive their flu vaccination by October so that they are protected prior to the start of widespread flu activity in your area. And we continue to recommend flu vaccination even after October, and the best time to get the flu vaccine is before flu is circulating widely in the area that you live and work in. We are looking into the waning of immunity over the flu season. Right now, we continue to recommend to get your flu shot or the, or the live attenuated vaccine prior to circulation. So, the news media about this waning does prevent, or present a confusing message to people. People need to weigh the benefits of possibly waiting to get their flu shot, and then the risk of being



infected while they wait for a flu shot. So, in, in my experience, in the flu division, we all still get our flu shots when the flu vaccine, vaccination campaigns are held at CDC. And those are held in September and early October. All of us are in line just with everybody else. I think the evidence out there suggests that we need to look into this further, and we're, we're doing that. We don't think that the risk of waiting is beneficial. I would rather be protected as soon as I can in the early fall and not risk flu circulation starting before I'm vaccinated. So I'll leave it at that.

[41:53]

John Donovan speaking:

Thank you, Melissa. Alright, we have, we have a lot of questions here around misconceptions. And one of them is directed towards, I believe it would probably be directed towards Sandra, but anybody can take this, so I'm going to read it off to you. I'm not sure which of the speakers to direct this to but I'm a pharmacist who recently gave a presentation on influenza recommendations in pediatrics. I included some of the data related to decreased morbidity and mortality from previous seasons. There's, there's this belief that, and I'm truncating this question, but there's, there's belief that there's pressure from drug companies that lead us to make a blanket recommendation that everyone should be vaccinated. I'd like to dispute this idea, but I cannot find a good answer to this. Do you have any recommendations on an appropriate response to this question?

Sandra Leal speaking:

Yes, thank you for the question. I think, you know, one of the things that I try to do is really use resources like the CDC. I, I can't think of another agency that I find more credible, and to try to follow guidelines than the CDC. So, when I get a question like that about pharma or, or anything that's a concern like that, I go to the source that I think is the most credible, and so that, that, I think that oftentimes helps with that. It's, it's very hard to change perception sometimes, so knowing you're getting a question like that, I really try to understand what the source of the concern is, have they had an experience where they had some sort of, you know, underlying bias, and really try to get to the root of where that question is coming from. But again, I think because I feel very comfortable, and in general most people have a lot of confidence in someone, and they just like the CDC, if you stick to those sources, and you don't use materials that are, could be perceived as biased, something from a pharmaceutical company or something like that, that might be perceived as biased, then you can hopefully stay away from those types of conversations and really just go to the guidelines, and, and speak based on the information that we have from a very credible source.

John Donovan speaking:

All right, thank you, Sandra. Another question we have here, do you have tips on what to say to friends and family when they say flu vaccine got me sick when I got it? How do you have these conversations with family and friends?

So, any of you three can feel free to jump in there; it just has to do with the misconception that flu vaccine can make you sick.



Sandra Leal speaking:

Yes, so I'll jump in again. This is Sandra. I definitely talk about, you know, again, getting to the root of their concern, why they feel that happens, and then sometimes I have to get into how the flu vaccine works, and actually explain that, you know, that maybe they were already exposed, and just kind of give them a little bit of background about how the vaccine works for them to feel that. That doesn't necessarily change their mind immediately, and it goes to the information I spoke about earlier about just having that discussion, addressing misconceptions, and just keep asking and keep having that information. I definitely leverage, you know, things that are going on, like for example, if it's a very bad flu season or if, you know, there's some information out there that makes it even more of a concern and bringing it back up. I'm like, "Hey, listen, have you heard there's a really bad season? Are you sure you don't want to try this? This is a really critical thing." And sometimes, you know, if a person, an individual has an issue with getting vaccinated, I talk about the impact to their family members. Maybe they are concerned about the vaccination for themselves, but then thinking about the consequences if they don't get vaccinated and what exposure they might be having for other family members that they're around. So it's really not just about protecting yourself, but protecting your kids, protecting your elderly parents, and then just having those types of conversations. Again, 100% of the time you won't be able to convince everybody, but it really takes just that consistent dialogue and, you know, sometimes I'm considered a pest in doing this, and it's only really because I care about the individual, and even just having that conversation sometimes is enough for them to give it a try. But, I, again, I talk about just personal experiences and the benefits of it enough times that, sometimes that we can, you know, take one of those nos and convert them into a yes.

John Donovan speaking:

Thanks so much, Sandra. All right, so, we have another question here, it is have you determined, and I guess this would be CDC has, have, so Melissa or JoEllen, have you determined how many deaths related to flu were not vaccinated, and if so, can we know how many of those deaths were children, teens, adults, etc.?

Melissa Rolfes speaking:

Yeah, this is Melissa. I can answer that or provide some, some guidance about that answer. So, flu deaths are not, in, in the general population, are not reportable to the CDC. The exception is that deaths in children less than 18 years are a nationally notifiable disease, and when we hear about a report of a pediatric death related to flu, we do ask some follow-up questions and the health department may contact that family to get more information about the vaccination status of the child. That's the only systematic place where we capture information about whether someone who's died from the flu was vaccinated, and that information is on our website, on the FluView surveillance platforms. So you can see for past seasons how many of the reported pediatric deaths related to flu have been vaccinated or not. And what we see is that, in those kids, the kids who die from flu, it's not 100% are unvaccinated, but it's about 80% are unvaccinated. And an analysis that came out a couple of years ago showed that looking at these pediatric deaths related to flu and comparing the vaccination coverage in those kids compared to kids in the broader US population, we did find a significant association between flu vaccination and being protected against death. So, that is available in the scientific literature,



and there's some communications information on the CDC website about that vaccine effectiveness estimate against pediatric death. But in the broader population, in those over, 18 years and over, we do not have a systematic way to capture how many people who die from flu were or were not vaccinated, unfortunately.

John Donovan speaking:

Thank you, Melissa. I also wanted to mention on October 11th, there was a news release released by CDC around flu vaccine reducing risk of flu hospitalization among pregnant women, and it was found over the course of six flu seasons, getting a flu shot reduced a pregnant woman's risk of being hospitalized from flu by an average of 40%. So, it's a pretty stark number, I know there's been some questions on here, there's quite a few about pregnancy, and kind of when to vaccinate, should I vaccinate, that sort of thing. And that's a pretty stark number to kind of bring up, and we've been really trying to focus on that.

So, with that being said, so JoEllen, we have a question about SIRVA. So, there's a couple questions about statistics for SIRVA from last year's flu season. Do you have any input on that?

JoEllen Wolicki speaking:

I know that we are, I know that we are in the process of collecting some statistics related to SIRVA. There are two ways that we're looking at it. We look at SIRVA, or shoulder injury related to vaccine administration, has been added to the Vaccine Injury Compensation Table, so we can look at it that way, and we can also look at, and we're also looking at Vaccine Adverse Event Reporting System, the VAERS system, reports to the VAERS system. So I would say that we're in the process of compiling that information.

John Donovan speaking:

Great, thank you. All right, let's look. See, we have quite a few here. And the ones we won't get to, we will get to after the call, so please feel free to continue asking questions. We'll be sure to get to them via email after the call. All right. So what if a patient asks for documented scientific evidence of efficacy of flu vaccine, what do you recommend?

[50:15]

Melissa Rolfes speaking:

This is Melissa. I can maybe point to some CDC resources. There's, every season, there's an update in the ACIP guidance around flu vaccination, and a lot of that guidance points to the randomized trials and the observational studies that have looked at the efficacy as well as the effectiveness of influenza vaccination. And also on the CDC website, every year, the flu division measures vaccine effectiveness in the outpatient as well as the inpatient setting, and every time those are published, either if they're interim estimates in the middle of a flu season, or final published estimates of the flu vaccine effectiveness, those also go up on our website.

John Donovan speaking:

Great, thank you. All right, so this is another kind of misconception question. What do you say to individuals who share the ingredients in the flu vaccine and state that it is full of toxins? So



Sandra, I'm not sure if you've had experience with addressing this misconception or, or not, but it might be, you might be well suited for it. I don't, don't want to put you on the spot.

Sandra Leal speaking:

Yeah, no, I mean that's definitely a question that comes up. When somebody has those types of questions, again, it's just trying to understand where they're at, why they're asking that question, what perception they have, but I definitely go back, and I know this is based on the previous question, where do you go for a resource and what kind of information do you pull. I definitely use the CDC as one of the key areas to pull information and resources, and they have this really nice printout that have, like, you know, misconceptions around the vaccination. I literally print out the, the, the document that they have every year, and I stick it on my desk that actually faces a patient as we're going through the vaccinations in case they have any of those myths. And then truly, when there's somebody who is very, very concerned, I've had, you know, people tell me that the government is trying to do something to them, with the vaccine, and you know, sometimes you won't be able to change somebody's mind. I'm not saying that every single encounter will be a yes, and you have to respect that, but just having the conversation; making that assessment; having those consistent reinforcing messages about why you, you know, you personally do it, why you take it, why you have your vaccine, or your family vaccinated, and why that's important – that's the message that you can continue to share. But I do want to say that, in some instances, you will find a very difficult case where it might be that you cannot fully convinced them to get vaccinated, and that's ok. I've had an encounter where patients will have a specific vaccine that they're concerned about, but they'll be ok with taking other vaccines. So, don't make the assumption that just because they don't want to get a flu vaccination, that they won't take another type of vaccination that they're comfortable with. So, those are the reasons why I constantly assess patients and then I ask about, you know, the individual vaccines, especially if they have a condition that warrants one because they might say no to one, but they might say yes to the other one.

John Donovan speaking:

Great, thank you. All right, so there was a question, are there good posters or infographics explaining last year's flu season, number of deaths, etc.? I would say to you that there's plenty of things on our, on our website, cdc.gov/flu. There was a really good infographic that was put out around the burden of last year's flu season, kind of putting those numbers in social math. I'd recommend that. There's also, as I said, kind of that HCP Fight Flu Toolkit, which includes a lot of good stuff, and the Digital Campaign Toolkit also includes a lot of good stuff, so I'd recommend going there.

I was going to ask another question here around vaccination and 65 plus. Let me see if I can pull it up here. Ok, well, so, the first question I have is what is the senior flu vaccine, and why not recommend it to every patient?

Melissa Rolfes speaking:

This is Melissa. I can maybe address this, and then maybe other speakers want to weigh in. There are several vaccines that are licensed, and for adults age 65 years and older, and those include a high dose vaccination, also there's an adjuvant vaccine that's in the 65 and over. And



that, those different types of vaccines are sort of targeted for that, that older age group because there's, those vaccines hopefully induce a greater immune response against the flu virus. And they're targeted for those older age groups because of that immune response, that we want to make it a little bit better in those older adults because they tend to not have as strong of an immune response to standard dose vaccine or standard influenza vaccination. There are moves to get those vaccines licensed in the younger sections of our population, but that's ongoing and the manufacturers have to do trials in those, in those other age groups in order to get them licensed by FDA for use.

[55:35]

John Donovan speaking:

Great, and so there, and there was another question – do you recommend flu shot for over 65 population? That would, that would be a yes. So, we are trying to get really, they're a particular priority for getting vaccinated just for their immune state, as you mentioned.

Let's see. Alright. Ok, some of these questions are similar. Ok. Ok, if there is, if somebody has an egg allergy, what do you recommend in terms of flu vaccination?

Melissa Rolfes speaking:

This is Melissa Rolfes again. I can point you again to some really good resources on the CDC website. The ACIP weighed in on this – the egg allergies and flu vaccination in people who have an egg allergy – and so there'll be specific details on the cdc.gov/flu, as well as on the ACIP minutes. And maybe John, we can point people to those exact resources, but by and large, as long as somebody doesn't have an anaphylactic-type reaction to eggs, flu vaccination is safe and can be given. Those people who are concerned about a reaction related to their egg allergy are encouraged to seek their healthcare provider and, and discuss it with them a little bit further. But the ACIP did weigh in on that, and they said it was safe to give to people who had egg allergies.

John Donovan speaking:

Thanks, Melissa. We had a couple questions about workplace vaccination, and I want to direct people back again to that HCP Fight Flu Toolkit. We have, we have a deck there called "Prepare Your Practice to Fight Flu" that I showed a screenshot of, that has some really good feedback on how to protect, how to basically prepare your practice, how to protect your co-workers and yourself, and so I recommend looking at that. That would include a lot of the answers likely that you're looking for.

I think we have time for maybe one more question. And once again, we're going to get to all these after the call, so please feel free to keep sending them. Alright, if somebody has flu already, how long should you wait until giving them a vaccine, and if someone is on Tamiflu when should they get an immunization?

Melissa Rolfes speaking:

John, this is Melissa Rolfes again. Our guidance for, basically any individual who's had an acute illness, they should wait until they're well again and afebrile before receiving a vaccination. I



think that's probably across the board, but definitely in terms of the flu vaccination. This also brings up a good point – if you have diagnosed flu, if you've had the flu, you can get the flu again even in a flu season, the same flu season, because several different viruses of influenza viruses circulate. And so even if you got flu early on, it's, it's still a good idea to get a flu vaccination because it's going to protect you from those other types of viruses that are out there. And each flu vaccine contains either three or four different influenza viruses. And so you're getting protected by those viruses, even if you've been exposed to a different flu virus. So it is still a good idea to get vaccination, vaccinated even if you had the flu in the season, just make sure that you're well enough to, to be active again, and, and you might want to consult your doctor too.

And in terms of the Tamiflu question, if you've been given Tamiflu, again, I think that it would be, we'd follow under the same guidelines that you should receive a flu vaccination when you're not acutely ill anymore, and that might be a discussion to have with your clinician.

John Donovan speaking:

Great. Thank you, Melissa. Well before we go, we're going to be wrapping it up, and we'll be answering all the questions we have, and there's a few there that we haven't, but before we go, I wanted to take the time to thank all of you for attending. I want to take the time to thank Public Health Foundation for hosting this webinar. And I also want to thank the speakers that took their time out of their busy schedules to answer so many of the questions you had, and, and I want to thank you again for taking an interest in making the country safer for all Americans and for playing a role in fighting flu. As we move forward in flu season, please go to cdc.gov/flu for more information, and that concludes our webinar for today. Hope you have a great rest of your week and a safe holiday season.

[SLIDE 46]

END.