

HHS/CDC NIVW Webinar: 2009 H1N1 Influenza and its Impact on People with Chronic Medical Conditions

Dr. Nicole Lurie - US Department of Health and Human Services

Dr. Anthony Fiore - Centers for Disease Control and Prevention

Dr. Otis Webb Brawley - American Cancer Society

Christine Tobin - American Diabetes Association

Mary Partridge - American Lung Association

January 12, 2010 (2:30- 3:30pm EST)

NOTE: This transcript has not been reviewed by the presenters and is made available solely for your convenience. A final version of the transcript will be posted as soon as the presenter's review is complete. If you have any questions concerning this transcript please send an email to coca@cdc.gov.

Coordinator: Thank you for standing by. At this time, all participants are in a listen-only mode. After the presentation, we will conduct a question-and-answer session. To ask a question, please press star 1. Today's conference is being recorded. If you have any objections, you may disconnect your line at this time.

Now, I'd like to introduce your host, LeShaundra Cordier. Ma'am, you may begin.

LeShaundra Cordier: Thank you. Good afternoon, everyone. My name is LeShaundra Cordier and I'm representing the Clinician Outreach and Communication Activity, COCA, with the Emergency Communication System at the Centers for Disease Control and Prevention.

I would like to welcome you all today to the National Influenza Vaccination Week Webinar on 2009 H1N1 Influenza and its impact on people with chronic medical conditions. We're excited to have presentations from the U.S.

Department of Health and Human Services, CDC, The American Cancer Society, American Diabetes Association, and the American Lung Association.

Today's Webinar will consist of five short presentations followed by a question-and-answer session. We are using a PowerPoint presentation that you can access via Live Meeting at the link provided in the invitation for the Webinar. Please feel free to listen-only if you're unable to access the PowerPoint presentation and if you need the link for the PowerPoint, please email us at coca@cdc.gov. That's C-O-C-A@C-D-C.G-O-V.

To open up the Webinar and provide us with a welcome, I'd like to introduce Dr. Nicole Lurie. Dr. Lurie is the Assistant Secretary for Preparedness and Response at the U.S. Department of Health and Human Services. She has previously served in Federal Government as Principle Deputy Assistant Director of Health in the U.S. Department of Health and Human Services, and State Government as Medical Advisor to the Commissioner at the Minnesota Department of Health, and in academia as Professor in the University of Minnesota School of Medicine and Public Health.

Dr. Lurie, you may begin.

Nicole Lurie: Thank you and let me add my welcome to all of you on the phone and on the Web to our Webinar on the 2009 H1N1 Influenza and its impact on people with chronic medical conditions.

As you know, this week is National (Influenza) Vaccine Week, and today we're really taking the time to highlight the importance of vaccination for people with chronic health conditions, particularly adults under the age of 65, because these underlying conditions are ones that put you at risk for serious influenza-related complications if you get the disease.

And as I think most of you know, lots of people (get the) disease and do fine, but there are lots of people who don't, and particularly those people with chronic underlying conditions are people who are at high risk of having lots of complications. And those complications can include pneumonia or bronchitis that can be severe enough to (cause you to) end up in the hospital or on a ventilator. And it can lead -- unfortunately -- to death, as well as very prolonged intensive care unit stays, and so we've been taking this very, very seriously.

The fact is that H1N1 flu has caused more death among adults with chronic medical conditions than it has in any other group. And one of the other challenges is that while vaccination coverage in kids has been quite good and is growing, most of the adults who have chronic medical conditions haven't yet gotten vaccinated, despite the fact that vaccine is now widely available.

One of the reasons for this is that many people in these groups go on about living their normal lives -- that's what we want people with chronic disease to do -- and so that they don't recognize necessarily that their medical conditions increase their risk, or they don't characterize themselves necessarily in a risk group.

You know, in addition to serving as Assistant Secretary, I also see patients in a community clinic once a week and all of my patients have chronic medical conditions. And they're all shocked to hear that they're at high risk because they feel good and they feel their disease is under control, and they don't necessarily associate themselves as being in a high risk group because in contrast to other high risk groups, this isn't associated generally with any particular kind of risky behaviors.

And so, really sort of raising awareness in people and helping people understand that it's in their best interest to get vaccinated. And frankly, it's in everybody's best interest to get vaccinated now, chronic disease or no, is really the focus of this Webinar today.

We're really grateful for the work of all of our partners in this, and particularly our partners today, the American Cancer Society, the American Diabetes Association, and the American Lung Association are doing a huge amount to outreach to their members and constituents and those with medical conditions. And I want to thank all three of these organizations for taking the time to be here today.

One of the other things that our listeners will hear is that not only are people of chronic - with chronic conditions at higher risk of getting into real trouble with this influenza, but that it can also make your chronic health problems worse. So for example, people with asthma who get influenza may experience just a worsening of their asthma, similarly people with congestive heart failure may find that their heart failure gets worse, or their diabetes, but their diabetes really gets out of control.

So, if you have a chronic medical condition and you think you have influenza, by all means, call your doctor and take the steps that you need to take to manage your disease, so that it doesn't spin out of control, as well as to figure out if there are additional things you might need to do like take antivirals. And those are exactly the kinds of things that I would tell my patients.

I would, in addition, point out that there are lots of resources that we have available on flu.gov in multiple languages, in print, in video, and audio, and Web, and new media, et cetera. And the two things that I really want to call your attention to are, you know, for patients the self-evaluation tool so that if

you get sick it will help guide you to what to do and help you figure out if you need to get care, and what kind of care you might need to get.

And then, absolutely the flu shot locator for those of you who haven't yet gotten vaccinated. It's great. You can enter into your - enter your zip code and up will pop a little map and a list of places like near where you live that have H1N1 vaccine. The goal has been throughout Influenza Week and now in general, now that vaccine is widely available, to try to get vaccine in the day-to-day path of where people live and work.

You also see a Calendar of Event for the rest of this week, so you'll see that we have activities for pregnant women, for young infants, for older adults, and college age adults, and feel free to join for any of these events as well.

It's time really to get started talking about how H1N1 affects people with chronic medical conditions and why vaccination matters so much, really for all of you. We want to be sure that, in addition to presentations, that we answer your questions and hear your concerns. And so, after the actual presentations, we'll be opening up the rest of this Webinar to all of your questions.

So, I hope that you're able to listen in for the duration, I hope you'll learn some things that you didn't know, and I hope that you will encourage your family, friends, neighbors, constituents, patients, whoever, to take advantage of the fact that it's finally their turn. It's time to get vaccinated.

Thanks very much.

LeShaundra Cordier: Thank you, Dr. Lurie for those opening remarks. Our next speaker is Dr. Anthony Fiore. Dr. Fiore has worked at the CDC since 1995 and holds the

rank of Captain in the Commission Core of the U.S. Public Health Service. His current duties include acting as CDC liaison to the ACIP Influenza Vaccine Working Group that is responsible for developing influenza vaccine policy.

He is Board certified internal medicine, infectious diseases, and preventative medicine, and Dr. Fiore I will turn it over to you to discuss the impact of influenza on people with chronic medical conditions and CDC immunization recommendations.

Anthony Fiore: Thank you very much and you should now be seeing just a very brief slide set that I wanted to use to guide us through this presentation, and let's see if I can successfully both advance the slide set and talk at the same time; so far so good.

I'm going to spend the first two slides just talking to you -- first three slides in fact -- talking to you about seasonal influenza because I think what we are beginning - that we're concerned about seeing with the 2009 H1N1 vaccination campaign is perhaps being - is perhaps a mirror of what we've seen for years with seasonal influenza vaccine.

We've long had a recommendation that persons with chronic medical conditions that make them more likely to have complications with influenza get an annual influenza vaccination. We've made a number of recommendations over the years, but this is one of our longest running recommendations.

Despite that, we have had fairly small incremental increases in vaccination coverage in many of the groups for whom vaccination is recommended. In

particular with this next slide, I'm showing you data that was published in the MMWR several months ago.

And again referring to seasonal influenza vaccine, that for persons -- for example -- 65 and older, many of whom have chronic medical conditions, we are stuck at about 70% or so getting the annual flu shot. For persons 50 to 64 who received an age-based recommendation because of the fact that many of them had chronic medical conditions and we were concerned that they were not recognizing that they needed to step up and get a flu shot, for this group we are stuck at about 40% vaccination coverage. And then, even worse than that, the group 18 to 49 who have high risk conditions, really not a whole lot over 30% or so receive an annual influenza vaccination.

This next slide breaks out the high risk 50 to 64 year olds from those healthy 50 to 64 year olds actually using a slightly different vaccination coverage system, but the results are more or less the same. Even though the group I'm showing -- at least on my screen -- is in red, the upper line there, it's indicating that the vaccination coverage for those high risk 50 to 64 year olds there's not a whole lot there, than the vaccination coverage for the healthy 50 to 64 year olds.

And so, that overall vaccination coverage of 50 to 64 year olds isn't disguising the fact that the right people are getting vaccinated. In fact, only about 50% of those really high risk 50 to 64 year olds, those ones with diabetes and heart disease and so on, are getting an annual flu vaccine.

So, let's move on to the recommendations for the 2009 H1N1 vaccine. Adults with chronic medical conditions ages 25 through 64 were the - amongst the initial five groups that were targeted to receive the early doses of vaccination. And that was based upon the preliminary data from the spring wave,

indicating that those groups were at high risk of severe influenza, including hospitalizations and deaths. And as Dr. Lurie mentioned, this is the demographic where we saw the most deaths.

This next slide is a way to make some sense of the increased risk. What I'm showing you, it's a little bit complicated here, but for each of those groups that you see along the X axis there, another one for example, for the people with asthma, what you see is the prevalence among people that were hospitalized due to laboratory confirmed 2009 H1N1. The prevalence is that -- this is the blue bar -- of people who died from H1N1, and then the prevalence in the general U.S. population.

So, you can see -- for example -- for asthma, 28% of hospitalizations were among people with asthma, 17% of deaths whereas if you compare it to the overall general population, it's only about 8% of people of adults that have asthma. And similarly, down the line for diseases like COPD and diabetes, and perhaps the one that has been one of the more interesting things that we are learning during pandemic, people with morbid obesity appear to face some increased risk of more severe infection.

And we're still trying to sort out whether this is a proxy or a - this is telling us that those folks have underlying medical conditions or whether obesity itself might be an independent risk factor. Again - and then moving down the X axis there you see diseases like neurocognitive disease, neuromuscular disorders, disorders that are relatively uncommon in the general population, but have unfortunately been quite common among people who have had severe infections, including hospitalizations and deaths.

And finally, pregnant women, 6% of the hospitalizations and deaths were among pregnant women in this case series, whereas only 1% of the population is pregnant at any given time.

This is also another component of that data. A slightly different case series -- again -- showing for lung diseases being the single most common risk factor, in particular asthma among adults. I'm looking now at the right-hand column there, persons greater than 18 years old. But, you also see a lot of - and these are - these groups could overlap here, that's why that's up to more than 100. You also see a lot of people that are immune suppressed, people with cancer, people with diabetes, and so on. And finally -- again -- we saw obesity in 50% of the people who died in this case series.

So, just to sum this up and to give some time for the other speakers, the most important points that I would like you to take away from this or these, that people with chronic medical conditions are at high risk for severe complications, including hospitalizations and death. And as Dr. Lurie mentioned, many people in these groups do not actually realize that because perhaps their disease is well controlled that their medical conditions do increase their risk.

I'm encouraging everyone to get vaccinated; it will -- including the family members of these folks -- will provide them some additional protection and will reduce overall transmission if we can get enough people vaccinated. And finally, our vaccination coverage among persons with chronic medical conditions, so far -- and hopefully we're still somewhat early in the vaccination campaign -- still remain somewhat low, 30% or so among higher risk children and about 25% among higher risk adults. So, that means that we have a long ways to go before we've really captured all of the people that are at higher risk.

And finally, something that's not on the slide, but Dr. Lurie mentioned and I want to also additionally mention is to talk to patients, both the vaccinated ones and the unvaccinated, and the one who choose to remain unvaccinated, to come forward if they develop a respiratory condition that could be influenza. Because antiviral drugs can be effective, particularly if they're given in the first few days of illness, and these drugs are widely available.

And that ends my comments. Thank you.

LeShaundra Cordier: Thank you, Dr. Fiore. I'd like to now turn it over to Dr. Otis Webb Brawley. Dr. Brawley is the Chief Medical and Scientific Officer and Executive Vice President of the American Cancer Society. He is a Professor of Hematology, Oncology, and Medicine and Epidemiology at Emory University in Atlanta, Georgia, and he serves as a member of the CDC Breast and Cervical Cancer Early Detection and Control Advisory Committee.

He also works as medical consultant to CNN and today he'll be discussing the risk of influenza for cancer patients. Dr. Brawley?

Otis Webb Brawley: Hello, it's a pleasure to join you today, and especially a pleasure to work with Dr. Lurie again. The American Cancer Society is pleased to help the Centers for Disease Control and the Department of Health and Human Services spread the word about the importance of influenza and flu vaccination. And I'm having difficulty advancing my slide if someone can do that for me.

As you can see here, the novel H1N1 virus is a major health concern for people with cancer. The illness can be extremely serious and can be fatal in

those with compromised immune systems such as cancer patients and cancer survivors.

A study done about three years ago found that cancer patients are at increased risk of death and hospitalizations from the seasonal flu. Indeed there are an estimated 16,000 cancer patients and cancer survivors who are hospitalized annually with serious bouts of season influenza. About 9% of those patients actually die from the disease.

As you can see here, for every 100,000 cancer patients about 441 are hospitalized with influenza, and for every 100,000 cancer patients and survivors, about 41 actually die from the disease. This is a rate which is four times larger than the general population. Those aged less 65 years when hospitalization rates five to ten times higher than the general population -- sorry -- and people with cancer, more than ten times likely to die from influenza.

However, the death rate from influenza can be prevented by using recommended vaccination schedules for patients with cancer, and their contacts. This has been shown to reduce hospitalizations, cancer treatment delays, and deaths in those susceptible to the disease.

Next slide, please -- the American Cancer Society supports CDC recommendations that people with cancer or history of cancer, as well as people who live with them and care for them, receive the H1N1 flu shot. Cancer survivors and those who live with or care for them should also be vaccinated against the seasonal flu.

As was mentioned earlier, cancer patients should be cautious as to what type of flu vaccine they get. Flu vaccinations come in two forms, the inactivated or

killed virus vaccine, and live virus vaccines, which are weakened. People with cancer should receive the inactivated or killed virus vaccine, which is administered by an injection to the arm.

The live vaccine is administered generally by nasal spray and should be avoided by cancer patients unless otherwise indicated by their physician. Keep in mind that people who have a serious egg allergy perhaps should not have the flu shot and should have a definite conversation with their physician.

As already mentioned, practicing simple steps such as avoiding people who are sick, washing hands with soap and water, will all work to decrease risk of spreading the flu. I also recommend to cancer patients and survivors develop a plan in advance, in consultation with their doctor, as to what to do if they should get sick, when should they call the doctor, and whether or not they need antiviral medication, and how to get prescription antiviral medication if it's needed.

Finally, cancer patients and survivors should contact their health care professional if they think they've been exposed to or have the flu. This is especially important for people who have blood or lymphatic cancers, or people who are actively receiving chemotherapy or radiation, or people who've had chemotherapy or radiation in the past six months - or six weeks --

Next slide, please? Fighting cancer is tough enough. By getting a simple vaccination patients can help prevent the flu and complications associated with influenza. To help promote the H1N1 vaccination, the ACS has implemented some new offerings online at www.cancer.org or on the telephone for patients at our 24 hour 800 number, which is 1-800-ACS-2345 where more information can be obtained.

We look forward to working with HHS and CDC on this important initiative and I'll be happy to hang on and answer questions at the end of the presentation.

Thank you.

LeShaundra Cordier: Thank you, Dr. Brawley for your presentation. Next, we have the American Diabetes Association President of Health Care & Education, Christine Tobin.

Ms. Tobin is a registered nurse with a Masters Degree in Business Administration. She's been an American Diabetes Association volunteer for 25 years and has served on the Association's National Board of Directors, as well as their Advocacy, Provider Recognition, Research Policy, and Finance Committees. Ms. Tobin will be discussing influenza and the risk to those who are diabetic, as well as outreach efforts of the American Diabetes Association.

Ms. Tobin?

Christine Tobin: Thank you. The American Diabetes Association is pleased to join the CDC and others to promote and reinforce the importance of vaccinations for people with diabetes and other chronic diseases. Our primary message to people with diabetes is, if you have diabetes, get your flu vaccine.

Next slide, please? Our organization has both a professional section and community section for those who are affected directly by diabetes. Mechanisms for disseminating this and other messages are done through the ADA National Standards of Care for People with Diabetes, which is published annually, our call center, a Web site, and through affiliates and counsels and communities around the country.

Through these channels, our primary message to people with diabetes is you need to obtain the H1N1 and seasonal influenza vaccines. Why, because people with diabetes are at high risk for developing serious complications from flu, both the seasonal and H1N1.

Getting the flu, like other illnesses, makes it more difficult to manage blood glucose control and leading to loss of metabolic control, and potentially diabetic ketoacidosis, DKA. Other concerns include secondary pneumonia or hospitalizations for other comorbid diseases and their complications. The American Diabetes Association is working to ensure that those with diabetes take action that will protect their health.

Next slide, please? Annually, these are the important overall diabetes management messages directed at people with diabetes, centering on prevention, preparation, and guidelines for an illness. They include, obtaining both vaccines (via) injection as the best possible way to prevent avoidable risks. Also, part of the standards and recommendation is obtaining pneumococcal vaccine, also taking the common steps to protect health, and lastly making a plan that includes review of sick day guidelines to prepare for the worst.

Next slide, please? Obviously, the best way to prevent flu and its potential complications for people with diabetes is to obtain both the vaccines. We also recommend that everyone over the age of 6 months obtain the vaccine. We also are recommending that the injections be given by injection and - because of the inactive virus.

Next slide, please? Additional precautions to prevent flu and its risks, the ADA Standards recommend the pneumococcal vaccine once during adulthood

with a booster at age 65. Another flu message centers on the everyday steps to protect wellness, such as hand washing, covering the mouth when sneezing and coughing, avoiding people who are ill. People with diabetes need to call their healthcare professionals when symptoms develop to ensure the prevention of loss of glucose control and the potential side effects of that.

Next slide, please? We also spend a lot of time with our patients making sure that they are prepared; that there is a plan. So, prior to, and because of - you know diabetes really is a disease that 99% of the time is managed by the person and in their home, so we really emphasize prior to cold and flu season the importance of preparation.

So, healthcare providers and diabetes teams will routinely review sick day guidelines, which are written steps to follow when illness develops, such as what to do and who to call. We also strongly recommend a sick day kit at home, which has a supply of over-the-counter medications, diabetes monitoring supplies, diabetes medications, liquids, soft foods for a week to ten days in case of developments of the illness.

Next slide, please? If you're unfamiliar with sick day guidelines for diabetes, I just put a few of the things that you would see on sick day guidelines here. Taking medications and both insulin and pills as prescribed. For people with Type I diabetes who require insulin, during an illness they will definitely require additional insulin to maintain blood glucose control. They need to eat their usual diet and if they - and at the usual times, and if they're unable to manage that, to replace that with liquids or soft foods to replace those calories.

They need to be checking blood glucose levels more frequently, urine ketones need to be checked, if the blood glucose is greater than 300 milligrams per deciliter. All of this needs to be recorded, their intakes, symptoms,

temperature, blood glucose, ketones, and reported to their healthcare provider as directed. These are really the important steps to avoid the secondary complications, if people do develop the flu.

Next slide, please? For people with diabetes, avoiding the risk of developing complications associated with the flu and illness really begins with prevention, so we all know prevention is the best medicine and what the importance of these vaccines are.

Thank you.

LeShaundra Cordier: Thank you, Ms. Tobin. Our last speaker is Mary Partridge, Chair of the American Lung Association's National Board of Directors. Ms. Partridge works closely with the Lung Association's President and CEO to further the mission of the organization by providing governance and oversight.

Today, she will discuss the American Lung Association's efforts to increase awareness about vaccination among those with chronic lung disease for both seasonal and H1N1 influenza.

Mary Partridge: Thank you. The American Lung Association is pleased to participate in this Webcast and to encourage people to talk with their doctors about getting the H1N1 vaccination, as well as the seasonal influenza vaccination.

Influenza, along with its complications, is a serious respiratory illness. The American Lung Association knows that the more than 35 million Americans living with chronic lung disease are at increased risks for complications from influenza, including pneumonia, acute respiratory disease, and wheezing. We also know that vaccination significantly reduces these severe outcomes.

Next slide, please? People with chronic lung disease are included among the high risk groups recommended to be vaccinated. Unfortunately, although we know that rates for seasonal influenza vaccination are high for people with COPD, rates for those with asthma remain low. Only about 36% of kids and adults with asthma get the seasonal flu vaccine. Our research show that seasonal flu vaccine is safe for people with asthma, and so this low vaccination rate is an important concern for the Lung Association.

Next slide. To reinforce our concerns, current reports such as (these) data from The New England Journal of Medicine have shown that 15% of those hospitalized for H1N1 had COPD, and an even larger proportion, almost 1/3 of those hospitalized with H1N1 have asthma.

Chronic lung disease is one of the most common underlying conditions reported among patients hospitalized with H1N1. Even more worrisome, 28% of adults admitted to intensive care due to H1N1 had either asthma or COPD. Eighteen percent of children with asthma admitted to the hospital for H1N1 have also required intensive care.

Next slide. Since 2006, the Lung Association in collaboration with Sanofi Pasteur has been involved in a multi-faceted campaign to raise awareness about the importance of influenza vaccination. This campaign is designed to show that influenza is a serious disease and we can all be a face of influenza. This campaign also delineates those at high risk as identified by CDC. We know that despite recommendations by national health experts that more than 4 out of 5 Americans should be vaccinated against influenza annually. Fewer than half actually are.

Next slide. The recent influenza A or H1N1 virus outbreak is a strong reminder that influenza is a serious and potentially life threatening disease.

We have used the Faces Campaign to highlight this issue and remind Americans that vaccination for both seasonal and H1N1 is an important first line of defense.

We have also used our already established coalition to unify these efforts across the country, as well as adjust our message as dictated by this unique and complicated flu season.

Thank you.

LeShaundra Cordier: Thank you to all our speakers. We can now open up the line for the question-and-answer session. For those using Live Meeting, you may also submit your questions at the top of your screen using the Q&A tab. We can begin questions now.

Coordinator: If you would like to ask a question, please press star 1. Please record your name and your affiliation clearly when prompted. These are required to introduce your question. If you have queued up to ask a question and would like to withdraw the question, you may press star 2. One moment, please.

One moment for the first question.

LeShaundra Cordier: While we're waiting for our questions from the line, we have a question for Dr. Fiore.

The question comes from (Miriam Blum) and her question is, "Can vaccine be given subcutaneously rather than intramuscular in the case of highly anticoagulated people?"

Dr. Fiore, are you on?

Anthony Fiore: Yes, I am. That is a very niche sort of question that doesn't come up very often, but yes it can be. However, typically the usual levels of anticoagulation that are used for most people do not necessarily preclude use of an intramuscular injection. I think it's a fairly - a fairly limited number of people who receive anticoagulation, out of that of the total who get it, who - necessarily have to get a different sort of injection, but intradermal injection does provide an immune response.

There is some increase in local reaction with intradermal injections, and they're tricky to give. So, it's important to sort of balance out the difficulties that - of giving it and the side effects with the actual risk of having intramuscular bleeding.

You can see some more information about intramuscular, when to give intramuscular injections and when not to in the General Immunization Recommendations that I can provide a link to if the organizers want to send that after the call.

LeShaundra Cordier: Thank you. Operator, do we have a question from the line?

Coordinator: Your first question comes from Kim Marshman with HHS. Your line is open.

Kim Marshman: This question is for Dr. Fiore. Dr. Fiore, is there a herd threshold for immunity? Do they have a certain amount of people -- you know what herd immunity would be -- is there a threshold that has been presented?

Anthony Fiore: We don't know what that threshold is, but I think most experts think it's a good bit higher than our current vaccination coverage. When herd immunity has been shown in small studies -- for example -- during the 1968 pandemic,

the number of -- for example -- school children in one of the studies that was vaccinated was upwards of 75%, 80%, so I think we would have a long ways to go yet.

We don't have a threshold picked for where we want coverage to be. We want to make sure that that vaccine is offered to everyone who might benefit from it, and at this point should be opened up to everyone.

Kim Marshman: Thank you. I have one other question, this is for Christine Tobin. I had a question about - you had mentioned, and I - my phone went out, I have to apologize, but you had said something about people with - should report their blood sugars and I have - I don't have the high and low parameters on that. I wanted to know if you could repeat that.

Christine Tobin: When we're looking at illness we're asking people as they get into the 250 range, because usually with an illness it's going to be an elevated blood sugar. So, at about 250 to 300, depending on how tight the previous - control has previously been, because some people who run in the 200's regularly we're saying, you know, 300, they should be checking ketones at that time.

Ketones are a definite signal. Call your doctor immediately or a healthcare provider, but at around 300 people are going to get into some serious trouble and they need to take steps.

Kim Marshman: Okay. Thank you. In addition to my question, if - a lot of people with chronic or Type II diabetes usually don't care for themselves like they should. And because of that they're blood sugars have always ranged high or they're just typically high for them. Would they be in the same category?

Christine Tobin: Well, unfortunately there are people who don't take care of themselves. If they have flu symptoms they really need to be calling because of the issues of going into DKA. Even Type II's will have problems with elevated blood sugars with the flu. I mean, it's inevitable. Even if they think they've stopped eating.

The other thing is that Type II's, particularly who are not in good control, have not had a review of what they need to do and when they need to call. So, what ends up happening is they -- for an example -- stop eating. They're not hungry, maybe they've had some vomiting, they're not eating, they've stopped taking their medications and that's when it really starts to compound. The illness is increasing their blood sugars and they've stopped taking their medication.

So, the real message is for everyone with diabetes, if you have symptoms you need to call your healthcare provider so they can get the appropriate directions on what to do next.

Kim Marshman: Thank you.

Coordinator: I have no recorded name on the next question. If you've queued up to ask a question, please check your mute button. Your line is open. You'll have to hit star 1 again.

I have another question. It's from (Andrea) from California. Your line is open, please state your affiliation.

Adriana Batista: Yeah, it's Adriana Batista from American Lung Association in California. I just have a question; it's regarding patients with asthma. Those patients who need to take their H1N1 vaccination, do they have to have their asthma under

control at the time of the - of getting the vaccine? Do they have to have specifically an injection vaccine or the aerosol vaccine?

Anthony Fiore: This is Tony Fiore, I'd be happy to take that. No, they don't necessarily need to have their asthma under control at the time of being vaccinated, but they should receive the intramuscular injected vaccine rather than the live attenuated intranasal vaccine, because the intranasal vaccine could stimulate more wheezing.

Adriana Batista: Okay. Thank you.

LeShaundra Cordier: While we're waiting for more questions from the phone line, we have a question for you, Dr. Fiore, from the Live Meeting. The question comes from (Fara Parvez) and her question is, "Do we have any indication that persons with chronic diseases are refusing vaccination or if they're not being offered vaccinations?"

Anthony Fiore: We don't know exactly the reasons why people choose not - are choosing not to get vaccinated at this point. I think it largely has to do with not having been motivated to get vaccinated and not recognizing that they are themselves candidates for being vaccinated.

And also, with the struggles that we had early on with not having as much vaccine as we wanted, you know, not every physician's office had it at the time when people might have initially thought to get their vaccines.

So, one of the purposes of this National Influenza Vaccination Week is to restart the conversation and get people back interested in being vaccinated, because there's still - we still have some time to go with the flu season. And

the hope is that we can once again stimulate interest in being vaccinated, but both among providers and patients who are risk for complications of flu.

LeShaundra Cordier: Thank you. Operator, do we have another call from the line?

Coordinator: I have no recorded name for this question. If you've queued up to ask a question, your line is open. Please check your mute button.

Please check your mute button? The next question is from (Sharon Ford).
Your line is open.

(Sharon Ford): Yes, I was wondering how long is the current H1N1 vaccine effective? That is, would we have to take it again at some point in the future?

Anthony Fiore: This is Tony Fiore, I can field that also. We don't know how long it will be effective, but in some ways we will be looking at a situation in the upcoming season when this monovalent vaccine is going to be in the seasonal vaccines.

So, people that are vaccinated now, they should have -- if they respond to the vaccine -- should have good protection into next season. But, when the trivalent vaccine shows up again in September or October, it will contain a - likely contain a strain that's similar to the current pandemic strain, as well as H3N2 and B strains.

And at that point, even if you've received that - the current monovalent vaccine that we're talking about now, we would still advise that people get that trivalent vaccine both for the protection that it would offer with the H3N2 and B strains, but also to renew their immunity to the pandemic strain.

But, we don't have any plans to recommend revaccinations of people that receive vaccines -- say -- in December or November of 2009. And if we continue to see influenza caused by the current strain into the spring as, you know, as you know, we hope we don't, but we might, we do not have plans to recommend revaccination for those folks, so it should last for at least a few months.

LeShaundra Cordier: We have another question from Live Meeting for Dr. Brawley. The question comes from (Anne Trippe) and the question is, "Are cancer patients who have finished treatment with chemo or radiation within the last six months still at high risk for complications to influenza, and why?"

Otis Webb Brawley: Generally, the answer is, we believe so. Certainly, people who have been treated for leukemia and lymphoma have (blunted) immune systems for the rest of their lives. Many people who have cancer treatments, especially chemotherapies, may have a (blunted) immune system for the rest of their life as well.

Certainly, within the first six weeks and certainly within the first six months, virtually everyone who has been treated for cancer should be especially careful in terms of catching both types sort of influenza, H1N1 and the seasonal flu.

LeShaundra Cordier: Thank you. Operator, do we have a question from the line?

Coordinator: This question comes from Charles Moseley. Your line is open.

Charles Moseley: Hello. I'm not too sure who to address the question to. I represent the National Association of State Directors of Developmental Disability Services, one of

the high risk groups, and I noticed that no one address that group specifically in today's session.

People with intellectual and cognitive disabilities need the assistance of others to manage their illness, as well as their adult basic living skills. And because they live in cognitive settings, because they live actually in the home of families, they are at great risk for transmitting it on to other people.

I just wondered, over the past several months the message that individuals with cognitive disabilities are included in the high risk group has not been well understood by health departments or local health officials. And I wondered if the CDC - what steps the CDC was going to take in the future to make sure that people are aware and that not only state health departments, but local health departments are aware that the groups, individuals with cognitive disabilities are in fact included in the groups.

Anthony Fiore: I can field that question. This is Tony Fiore again. Going forward - well certainly for the current situation, we're at this point recommending that everyone consider getting vaccinated, everyone six months and older, including...

Charles Moseley: I was really referring to the priority vaccinations both...

((Crosstalk))

Anthony Fiore: Yeah, I think - I'd hope that we are not going to be looking at a prioritization sort of situation in the future going, you know, going forward. All children are recommended for seasonal vaccine and among adults, the list of people with medical conditions that are an indication for vaccination includes cognitive

disorders, neuromuscular, and neurological disorders. And so, those groups are a target of vaccination.

I think we did attempt to emphasize early on, including with an MMWR that came out in the summer, the problem that we have particularly seen with persons with neuromuscular disorders, if there was some confusion at local and state health department levels about who sort of fell into that category of having a neurological cognitive disorder, I think it might have had to do with the difficulty in sort of drawing a line between what is, you know, what is a cognitive disorder that really puts you at risk, and what is one that might be of a lesser risk, a learning disability or something like that.

So, I think there was probably some confusion and something we need to think about as we - if we ever have to do a prioritization again, we'll have to draw that line a little brighter.

Charles Moseley: Thank you.

Coordinator: Your next question comes from (Marsha) from the Washington State Department of Health. Your line is open.

(Marsha): Thank you. I'm also not certain who might answer this question. In the past there was some indication that persons with HIV, Aids infections might have increased viral replication post vaccination for flu. Is there any update on that sort of information?

Anthony Fiore: This is Tony Fiore. I can field that. You're right that there were several studies done a fairly long time ago at this point that had suggested that there might be an increase in replication, but studies since that time have not borne that out.

If you look in the annual Influenza Recommendations from last year, and you'll see it again in this upcoming year, for seasonal influenza vaccine you'll see a treatment to that - a section that deals with that particular problem. And at this point, we continue to recommend the influenza vaccination for people with HIV. And that the idea that it might actually increase viral replication I think has - there's at least conflicting evidence and I think most people believe that it's not a significant concern and they are recommended for getting vaccinated.

Coordinator: Your next question comes from (Pat Bundt) from the Pasco County Health Department. Your line is open.

(Pat Bundt): Hi, this pertaining to H1N1. Months ago, we the medical experts, told the healthier or old age group that they weren't at risk. How do we convince them now that they do need the vaccine?

Anthony Fiore: This is Tony Fiore again. I think that we - our message that we had hoped to provide back when we were prioritizing people with - older people were at somewhat lower risk of getting infected, not that they were not at risk. And unfortunately, I think the way it probably was reported in many places, and probably a misperception even amongst some providers was that they'd face no risk at all.

I think we are - you'll see a lot of communication efforts associated with this week, in particular Friday, which is the day designated for older adults encouraging them to get vaccinated. You'll see a lot of information that is trying to encourage them to get vaccinated, but also to tell them that when older adults do get infected with this particular virus they do face the highest risk of complications associated with it.

So, it's a very - it's tricky messaging. It's clear that older adults don't face as high a risk of acquiring the disease as younger persons, but once they do they can get into trouble. And so, I - you know, we'll do our best during this week to try to reverse the idea that might be out there of no risk in older adults.

Coordinator: Your next question comes from Dr. (Norman Caso). Your line is open.

(Norman Caso): I was wondering several things. One, why is the nasal mist not appropriate for people 50 and over? Why does one of the vaccine manufacturers include several antibiotics - antibiotic allergies as a problem for people to receive their vaccine? And there was something else that escapes my mind at the moment.

Anthony Fiore: This is Tony Fiore. I think that might be another one for me. The nasal spray vaccine is - the effectiveness and safety was reviewed by an FDA Advisory Committee when it first was brought up for approval, for licensure approval back in, I believe it was 2003.

And at that point, the Advisory Committee determined that there was insufficient data to recommend it for persons 50 and older. That the data that was presented in the application was not sufficient to support the licensure in that age group. It's not known to be unsafe; it's just not currently licensed in that group.

As far as the antibiotic, there's a small amount of antibiotics contained in some of the influenza vaccines, that's a difficult question to answer and I might have to send you to FDA to answer that. Each of the manufacturers does things a little bit differently and their package inserts read differently also, and it doesn't - and sometimes it doesn't exactly reflect the true differences between the vaccines.

So, I think I'm going to have to defer on that question. I'm sorry.

Charles Moseley: Okay. And the other thing, something was mentioned at the beginning of this conference about a Website where you could enter your zip code and be directed to some place to get the vaccine. Does that Web site exist?

Anthony Fiore: Yeah, that should be on [www.flu -- F-L-U -- .gov](http://www.flu-f-l-u.gov), I believe. If the moderator wants - I mean when we post this information maybe that Web site could be posted also.

Charles Moseley: Okay. I'm familiar with that. Thank you.

Coordinator: Your next question comes from a Doctor from the Birmingham, Alabama Department of Health. Your line is open.

(Sviles Malie): Hello, I'm Dr. (Sviles Malie) and this is a question addressed to Anthony Fiore. I feel people traveling abroad from U.S. are a target for acquiring H1N1 as it's a pandemic now. How do you justify not including them into the priority group?

Anthony Fiore: Well, I hope at this point we're not using the priority groups to guide vaccination efforts. There should be plenty of vaccine for everyone at this point. Are -you're referring to back in October and November when we had limited vaccine supply and why didn't we put travelers in that group?

We just had not seen evidence that travelers were at any particular increased risk. In fact, one might argue that for much of the early stages of this pandemic that a lot of the risk involved people coming into the U.S. We had a lot more disease than other parts of the world for the first several months.

(Sviles Malie): Okay. Thank you.

Coordinator: There are no other questions at this time.

LeShaundra Cordier: We have another question from Live Meeting. (Lisa Starr) and (Vetta Morrison) both are asking about vaccine with egg allergies and they are - their question is, "Are there vaccines available for those with egg allergies, and please be specific about how to manage a client with egg allergies who really desires vaccination."

Anthony Fiore: There are not currently vaccines that are not grown in eggs. You know, I think we're very close to having cell culture-grown vaccines that might avoid the egg allergy problem, but they're not available at the moment. Stay tuned.

As far as managing people with egg allergies, there's some fairly - this is something that it's going to be hard for me to go through on a call and I'm afraid I'd make a mistake if I did. But, there are - there is information on our Web site that discusses egg allergies and influenza vaccine and I can even send you some references if even more specificity is needed. I might have to take this up with you separately, but there is some information on our cdc.gov Web site.

LeShaundra Cordier: Thank you. We have another question from Live Meeting. This is from (Christy) and she wants someone to talk about the relationship between recently being on antibiotics and receiving the vaccine, whether seasonal or H1N1, and if there's a waiting period for receiving this.

Anthony Fiore: If you're speaking about antibacterial antibiotics, no, there's no particular waiting period. For the inactivated vaccine there's no concern either with use of antivirals. The one exception - two concerns is with the live attenuated

vaccine. If you've received antivirals within the previous 48 hours, you shouldn't get the live attenuated vaccine because that vaccine depends upon the virus being able to replicate for a time in the nose and the antivirals would prevent that.

So, there's a window of time when you shouldn't be vaccinated. It's within 48 hours of getting antivirals. And if you get the live attenuated vaccine and then subsequently have to take antivirals, because people think you have the flu, you shouldn't count that dose and get revaccinated after you've finished the antivirals if you started the antivirals within two weeks of receiving the influenza vaccine.

I think I probably explained that in a fairly confusing way, but that is spelled out in the annual Influenza Vaccine Recommendations, and it still applies here.

LeShaundra Cordier: Thank you. We have another question from Live Meeting. The question is from an unknown caller, so it's, "Can the H1N1 influenza result in a person developing asthma without previously having any symptoms?"

Anthony Fiore: That's a good question and I think that's probably an underappreciated reason to try to avoid getting flu. You can develop a cough that lingers for quite some time after having a respiratory infection, and influenza is one of those that can do this to you.

And so, you can get a sort of post-viral asthma syndrome, which is not - which wouldn't typically be a long-term life-long type of thing, but can certainly linger for weeks afterwards.

LeShaundra Cordier: Operator, do we have any more questions on the line?

Coordinator: You have no questions at this time.

LeShaundra Cordier: Okay. We have one more question and it comes from Live Meeting as well, and it's, "What do we know about the effectiveness of the H1N1 vaccine and preventing H1N1 flu, as well as flu-related complications among different age groups?" And then, part two of that question is, "Is it similar to the effectiveness of the seasonal flu vaccine, and how effective the studies been done at this time?"

Anthony Fiore: That's a good question and I'm glad you asked it. At this point, the information we have is - has to do with the antibody response after one is vaccinated and that has been very good so far. It's really been about as good as we could have hoped. People that are vaccinated in all of the studies with all of the vaccines have responded in a way that's quite similar to the way they respond to seasonal vaccines and in some cases even better.

They make lots of good antibodies that should be - that are specific to the 2009 H1N1 virus and should provide them with protection. However, what we don't have yet is actual proof of clinical effectiveness, and that means that we have not had enough disease in areas where we had set up a vaccine effectiveness studies yet to be able to say that it definitely reduces your risk of actually getting sick. So, this - so I'm making a distinction here between antibody response and actual prevention of illness.

We typically don't get data from the - we do these studies every year and I typically don't get the data until after the flu season is over, so stay tuned. I mean, I think you'll see that data come out within the next several months, but we don't have that information yet, and we wouldn't typically have it at this stage of an influenza season.

LeShaundra Cordier: Dr. Fiore, I have one more question that came in through the COCA mailbox, and I think you've covered this already, but we just want clarification. So, the question is, "Only those smokers and asthmatics age 19 through 64 are recommended to get the vaccine, so how about those younger than 19 who smoke or have asthma? Do they need - do they not need the vaccine as well?"

Anthony Fiore: At this point, we are encouraging everyone who wants to prevent illness in themselves or - and reduce the risk of transmitting it to others to get vaccinated. So, we're not at the point now that we have lots of vaccine of drawing those sorts of distinctions.

Certainly, anyone who smokes is - tends to more often get respiratory diseases, including influenza and more often get more severe respiratory diseases. I would encourage anyone who smokes, in addition to stopping smoking, to get influenza vaccine regardless of age, and that includes some people over 64 and people younger than 19.

LeShaundra Cordier: Well, thank you. I'd like to thank all of our presenters for providing such great information today. I'd also like to thank all of the listeners that participated in today's Webinar.

The audio, transcript, and PowerPoint for today's Webinar will be available on the NIVW Resources Page at www.cdc.gov/flu/nivw under the Resources for Health Professionals and Partners link.

This information will also be available on the COCA Web site. If you have any additional questions for any of our speakers, please email your questions to the Clinician Outreach Communication Activity, or COCA, at

coca@cdc.gov . Please indicate the speakers name in the subject line of your email and we will ensure that they are forwarded to the appropriate person for response. Again, that email address is C-O-C-A@C-D-C.G-O-V.

CDC also would like to invite you to participate in the upcoming NIVW event. Please visit www.flu.gov/getvaccinated for more information. That address is www.flu.gov/getvaccinated

If you enjoyed this call and would like to participate in additional free education opportunities sponsored by the CDC on emerging events, I encourage you to sign up for COCA to receive updates and training announcements directly via email. Please go to the COCA Web site at <http://emergency.cdc.gov/coca> for more information. Again, that address is <http://emergency.cdc.gov/coca/>

Remember to get vaccinated and thank you again and have a great day.

Coordinator: Thank you for participating in today's conference call. You may disconnect your line at this time.

END