

WILLIAM SCHAFFNER, MD: Good morning everyone. Thank you all for coming. It's great to see so many familiar faces in the room, and to be joined by many of you on the phone. I'm Dr. Bill Schaffner. I'm the medical director of the National Foundation for Infectious Diseases, the NFID. On behalf of NFID, I'm pleased to welcome you here this morning to talk about influenza, also known as the flu, as well as pneumococcal disease. Before we begin, I want to remind those of you on social media to please join the conversation by using the hash tags #FightFlu and #PreventPneumo.

NFID has been hosting this important news conference for more than 20 years. Each year, we look to this day as a kickoff that serves as a critical reminder that flu is unpredictable, but we can predict it will arrive. It needs to be taken seriously, and vaccination is clearly the best prevention. So, now that the 2019-2020 flu season is upon us, it's time, once again, to talk about the single-most important thing we need to do, all of us, each year. That's right. Get an annual flu vaccination. Vaccination is clearly the best way to protect yourself and your loved ones against this really nasty virus.

The recommendation is simple. It applies to everyone, age 6 months and older. And it's critically important in persons at high risk for influenza-related complications, such as pregnant women, young children, older adults, and people living with chronic health conditions. Vaccination is important, regardless of gender or ethnicity. Unfortunately, it's often lower among African-American, Hispanic, and American-Indian, Alaska Native populations. The Centers for Disease Control and Prevention (CDC) data suggests that this was true, again, for the 2018-2019 influenza season.

NFID is committed to increasing awareness and prevention of all vaccine-preventable diseases. That's why we're so pleased to be able to bring together government, nonprofit, and private sectors, professional societies, and advocacy partners, to collectively advocate for influenza and pneumococcal disease prevention, with one strong voice.

So thank you to our partners. Many are in the room today, and still more are on the phone. Thanks, also, to all of you in the room, and listening in, for those of you here from the media, for communicating these important health messages to the public.

Today I'm pleased to welcome our keynote speaker, Health and Human Services (HHS) Secretary Alex Azar. It's an honor to have Secretary Azar join us this year to talk about how we can protect the nation against influenza and pneumococcal disease. I'd also like to welcome our other distinguished panelists. First, we have Dr. Patricia Whitley-Williams, who is president-elect of NFID and professor of pediatrics at the Rutgers Robert Wood Johnson Medical School. She'll join us today to talk about influenza in the pediatric population.

We also have Dr. Bill Borden, an associate professor of medicine and health policy at George Washington University and a preventive cardiology specialist. He'll talk about how influenza and pneumococcal disease impact individuals with certain chronic health conditions, especially those with heart and lung disease and diabetes. We also have Mark May with us. Mark is a former Washington Redskins player and the 1980 Outland Trophy Winner. He'll join Secretary Azar today to get his flu vaccine, on camera.

As health professionals, we believe it's critically important that we lead by example. So we'll all be getting vaccinated to protect ourselves, our families, and our patients. I'll get vaccinated myself.

Following the presentations, we'll open a Q&A for the media. But before I turn the program over to our panel of experts, let me make a few brief remarks, starting with an overview of why vaccination is, after all, so critical.

The World Health Organization (WHO) has listed vaccine hesitancy as one of the top 10 threats to public health in 2019—a fact illustrated by the disease outbreaks that are grabbing headlines

across the nation. The reality is, that unless we all start to prioritize prevention, vaccine-preventable diseases will persist in the United States. As a nation, we need to prioritize disease prevention. This summer, NFID commissioned a survey of US adults to better understand beliefs around influenza and pneumococcal disease, as well as attitudes and practices around vaccination. The sort of good news is that the survey showed that six in ten US adults, 60 percent, think the flu vaccine is the best preventive measure against flu-related deaths and hospitalization. Of course, that means 40 percent haven't gotten the word yet.

The survey also indicated that only half of adults, 52 percent, plan to get vaccinated this season, only half. The most commonly cited reason for not getting vaccinated is the perception that flu vaccine does not work. Fifty-one percent told us that, followed by concern over side effects. Most troubling is that nearly a quarter of individuals who said they didn't intend to get vaccinated this season, are actually at greater risk for flu-related complications, because they're either 65 years of age or older, or have underlying health issues, such as diabetes, asthma, and heart disease, that actually predispose them to the complications of influenza.

So why is it that flu vaccination coverage in this country is so low, year after year? CDC estimates, for this past season, it hovered around 45 percent for US adults, and about 63 percent for US children. We all know that the flu vaccine isn't perfect, and we saw that last year's vaccine was more effective at the beginning of the season, but less so by April, when the H3N2 virus was circulating.

Even still, it's critical that we emphasize the importance of partial protection. I think it's important that I say it again. We need to emphasize the importance of partial protection. We need to remember that, even if you get influenza, after having received the vaccine, you are likely to benefit by having a less severe and shorter illness. And more important, you're less likely to suffer the complications, including pneumonia, hospitalization, and dying. You're less apt to have those complications.

This part of the story has not been sufficiently told. I'm looking at my media friends. Hint, hint. [laughter] Another finding from the NFID survey that was particularly concerning relates to pneumococcal disease. Our survey showed that nearly 60 percent of adults with risk factors for the disease said that they have never been advised to be vaccinated against it. And 70 percent said, oh, they weren't planning to get vaccinated. I guess if they haven't been recommended, you can see why they were not planning to get it.

The NFID survey results bring up a few critical reminders. First, we often hear that people don't like to get vaccinated because they're afraid of needles or because they don't think they're at risk for the infection for the disease. But this public opinion poll reminds us that the perceptions about effectiveness, and to some extent, safety, also truly can be barriers.

For those concerned about side effects, it's important to remember that, other than a soreness at the injection site, there really isn't any notable side effect with either flu or pneumococcal vaccines. Hundreds of millions of people in the United States have safely received flu vaccines over the past 50 years, and there has been extensive research supporting the safety of both flu and pneumococcal vaccines. So get vaccinated. It's still our best tool to prevent disease. As Ben Franklin advised us, an ounce of prevention is worth a pound of cure.

The other point from the survey that I think is important to emphasize is that US adults said they mostly turn to healthcare professionals for information about influenza and vaccines. It's a reminder for all of us that the recommendation of a healthcare professional matters. As healthcare professionals, we need to insist, diplomatically, on vaccination for our patients. Thank you.

It's now my pleasure to introduce Secretary Azar.

[applause]

ALEX M. AZAR II: Well thank you, Dr. Schaffner. And good morning everyone. And thank you for joining us here today for this important event, the annual kickoff of this year's national flu vaccination campaign. Each year, this is an opportunity to lay out flu vaccination coverage and results from the prior flu season, discuss the options and benefits of flu vaccination, and encourage everyone to make flu vaccination part of their routine. So I'll touch on each of these topics today.

I am here because the mission of HHS is to protect and enhance the health and wellbeing of every American. And one of the easiest ways to do that each year is for everyone over 6 months of age to get a flu vaccination. Vaccination and the flu are important public health issues and causes for the entire Trump administration. The President's vision for healthcare focuses, above all, on better health, and increasing vaccination rates is a place where we have an opportunity to make a clear impact.

Make no mistake, the flu is serious. But it's an impactable health challenge. It's a lot more than just a couple missed days at work because of fever, body aches, and just feeling lousy in general. It is a serious, potentially even deadly illness. That's one reason why, just last week, President Trump signed an executive order to have HHS take the lead on modernizing our flu vaccine manufacturing capabilities. More modern manufacturing will enable us to produce vaccines faster and potentially with even greater efficacy for both seasonal flu, and the small but real chance of a pandemic flu.

Each year, seasonal flu sickens millions of Americans, hospitalizes hundreds of thousands, and kills tens of thousands. One of the very first press events I did as HHS Secretary, as it happens, was last January, reminding Americans to get vaccinated during that particularly severe season. This past winter's season, 2018 to 2019, was not as severe. But it was record-breaking in duration, with flu activity elevated for 21 weeks.

I want to talk about flu deaths in children for a minute, because the death of a child is especially heartbreaking. When we look at flu deaths in children reported to CDC, we see that the youngest are most affected, with incidence highest among children younger than 6 months, followed by those aged 6 to 23 months. Illness occurs very quickly. Sixty-five percent of reported flu deaths in children happen within seven days after symptom onset. Thirty-eight percent of deaths occur before being admitted to the hospital. Half of the children had no preexisting medical conditions.

These are frightening numbers, and each one represents a human tragedy. But many of these deaths are preventable. Of those children 6 months and older who died from the flu between 2010 and 2016, only 22 percent were fully vaccinated against flu. We know that flu vaccination can be life-saving in children. In fact, a 2017 study was the first of its kind to show that flu vaccination can reduce a child's risk of dying from influenza by 50 percent or more.

Today we've got some good news to share from CDC's vaccination coverage estimates for the 2018-2019 flu season. Vaccination among kids across all ages, 6 months through 17 years, was almost 63 percent, an increase of nearly 5 percentage points from the previous season. As usual, coverage was highest among the youngest kids, 6 months to 4 years, at 73 percent. From 2010 to 2011, through last season, vaccination coverage in kids, overall, has increased more than 10 percentage points, which is wonderful.

Vaccination coverage among adults, on the other hand, has increased only about 5 percentage points over the past decade, remaining stuck at about 45 percent—leaving more than half of adult Americans unprotected from flu each season. We've also seen a plateau among adults 65 years and older, who are the most vaccinated group among adults generally. People 65 and older account for a majority of the flu deaths and hospitalizations we see each season. Yet still, last season, 32 percent of people in that age group did not get vaccinated.

A final important group to follow is healthcare workers. We estimate 81 percent of all healthcare workers got vaccinated last season, which is great. But it's not uniform. Only 68 percent of long-term care workers got vaccinated. Many of them work with patients who are at the highest risk of serious flu complications. So we've really got to see this number increase.

So what can flu vaccination do for our health? CDC is still finalizing the estimates for last season. But each season, influenza vaccination prevents several million illnesses and medical visits, tens of thousands of hospitalizations, and thousands of deaths. Over recent years, on average, flu vaccination has reduced an adult's chances of going to the doctor with the flu by between 30 percent and 60 percent.

So why doesn't everybody get the vaccination? A recent national study indicated that the main reasons for not getting a flu vaccine are the following: People think flu isn't serious, or they are unlikely to get very sick from influenza. People have concerns about the safety and side effects of flu vaccines. People think flu vaccines don't work. I'm here to tell you, flu can be very serious, and it kills tens of thousands of Americans every year. But flu vaccines are safe and effective. Hundreds of millions of doses of flu vaccine have been safely given to Americans for more than 50 years.

The Food and Drug Administration (FDA), in close coordination with CDC and the National Institutes of Health (NIH), work year-round to fight the flu, helping to ensure that all flu vaccines are safe and effective. And finally, the benefits of flu vaccination are substantial. Getting vaccinated can keep you from getting sick. It can keep you out of the hospital if you do get sick. It can even save your life.

Further, it's not just about you. Vaccination can also help protect women during and after pregnancy. A multi-year, multi-country study by the CDC showed it reduced the risk of flu hospitalization among pregnant women by 40 percent on average. Flu vaccination during

pregnancy also protects babies who are too young to be vaccinated, because these babies are born with antibodies that their mothers developed after vaccination. Getting vaccinated yourself may also protect people around you, including those who are more vulnerable to serious flu illness, like babies and young children, older people, and people with certain chronic health conditions.

Yes, some people who get vaccinated still do get sick with flu. But there is more and more data showing that vaccination makes illness less severe, helping to prevent serious outcomes. When I first talked about vaccinations during the 2017-2018 flu season, I analogized getting vaccinated to wearing your seatbelt. It doesn't mean that you're invincible, but it offers very substantial protection for very little effort.

This season, there are many different flu vaccine options available for consumers, including the nasal spray flu vaccine, the high dose vaccine, an adjuvanted vaccine, and a recombinant vaccine. You can talk to your doctor or another healthcare provider, like a pharmacist, to learn about your options. It's recommended that you get your flu vaccine by the end of October. And you can go to vaccinefinder.org to find where you can get vaccinated. You can get flu vaccines at a variety of places, including doctors' offices, pharmacies, workplaces, schools, community health centers, health departments, and more.

Healthcare professionals have a role to play too. Remind your patients that flu vaccination is recommended for all patients 6 months and older. Your recommendation is crucial in motivating your patients to get vaccinated. And it's also important that you get vaccinated to protect yourself and your patients.

I want to offer one final note. When adults are getting their yearly flu vaccine, it's a great time to make sure they are up to date on other recommended vaccines—a key way to improve health is that the Trump administration has put a special focus on. Like the flu vaccine, all vaccines

approved for use in the United States go through a rigorous evaluation process by the FDA to ensure their safety and effectiveness.

I'll mention one vaccine in particular that can be tied to the flu, pneumococcal disease. Pneumococcal disease can cause a range of serious illnesses, and is a common and deadly complication of influenza. Each year in the United States, more than 2 million people get pneumococcal disease, and over 6,000 of them die, with most of those deaths among adults aged 65 years and older.

CDC recommends pneumococcal vaccination for everyone age 65 years and older, and for adults with weakened immune systems, who have certain chronic health conditions, or who smoke cigarettes.

I want to close by explaining the three steps we recommend throughout flu season to stay healthy. The first and best defense is to get the flu vaccination. Everyone 6 months and older is recommended to get an annual flu vaccination. The second step we recommend for fighting flu, as well as other respiratory illnesses, is to take everyday preventive actions to stop the spread of germs. Stay home if you're sick. Avoid people who are sick. And, as a good practice, always practice good hygiene. Wash your hands often, and cover coughs and sneezes.

Last but not least, take flu antiviral drugs if your doctor prescribes them. Those who are very sick and those who are at high risk of serious flu complications need to get treated quickly. Taking antivirals early, if you are sick, can shorten your illness, make it less severe, and prevent more serious outcomes.

Getting a flu vaccine is the best thing you can do to protect yourself and your family this flu season. I encourage everyone to make flu vaccination a healthy habit each and every year. Everyone has their own reasons for protecting their health with a flu vaccine, which is why this

upcoming flu season, HHS, CDC, and FDA are encouraging Americans to use the hashtag #WhyIFightFlu, and to talk about why you vaccinate or get vaccinated.

Today I'm doing my part. I'm getting vaccinated today to protect my family, my wife and kids, my parents, those I work with, everybody around me, every day. We can't have America's public health leaders coming down with the flu. Again, I urge everyone else to do the same. Please get your flu vaccination to protect yourself from the flu this year, and protect everyone around you, and especially those you love.

Thank you for your attention today.

[applause]

WILLIAM SCHAFFNER, MD: Thank you, Mr. Secretary, for that stirring call to action. Thank you very much. I'd now like to introduce Dr. Patricia Whitley-Williams. Pat is going to be talking about influenza in children.

PATRICIA N. WHITLEY-WILLIAMS, MD: Thank you so much. Good morning everyone. I'm pleased and excited to be here to talk to you about why it is important to vaccinate children against flu. As a pediatrician, I can tell you that prevention is our number one priority. We try to prevent children from getting diseases like flu that can cause health problems, hospitalizations, and yes, even death.

In the United States, we've done a remarkable job of immunizing children, which has resulted in the marked decrease in vaccine-preventable diseases in the last century, to the point that our younger pediatricians have never seen some of these vaccine-preventable diseases. Pediatricians, though, play a very powerful role in educating parents in the importance of vaccines, as well as about their proven safety, as you have already heard.

So today, I'm recommending, as well, that everyone age 6 months and older get an annual flu vaccine. This past year, we again saw high rates of pediatric hospitalization due to flu-related complications. It was interesting in that it included not only children who had underlying chronic conditions, but also healthy children, healthy babies, who were hospitalized and even died from flu-related complications.

But we know that there is a way to reduce the mortality and morbidity from flu. Earlier this month, a CDC multi-country study found that the number of children younger than 1 year of age who are hospitalized with flu is at least double the current estimates. As a pediatrician specializing in infectious diseases, I can tell you, I have seen flu, and I have seen the devastation that flu illness can cause, and its complications. These include, just to mention a few, pneumonia, dehydration, and even worsening of the child's underlying medical condition.

This past winter, I remember standing next to a mother of a 9-month-old. The child had been admitted and was diagnosed as having flu. The child had more difficulty breathing, was transferred to the intensive care unit, and was soon placed on a ventilator to help the child breathe. The child remained on the ventilator for seven days, and then required several more weeks of hospitalization.

The mother looked at me during that first week, while her child was sedated and on the breathing machine, and said, "You mean I could have prevented this?" This mother did not believe in vaccinating, because she felt that the flu vaccine was not effective, and she was concerned about vaccine safety.

We know that flu complications can lead to death. And unfortunately, recently, there was a pediatric flu-related death in a 4-year-old child who happened to have an underlying health condition. This past season, there were 135 pediatric deaths due to the flu, even though it was a moderate flu season. As you've heard before—and I think we need to drive this point home—

even healthy children, children who do not have chronic illness, are suffering the effects and complications of flu.

But we know that it doesn't need to be this way. A recent study that was published in the journal *Pediatrics* showed that flu vaccination can significantly reduce a child's risk of dying from the flu. Vaccination actually reduced the risk of flu-associated deaths by 65 percent. That is highly significant. So now is the time to think about flu vaccination for our kids. It's so important that young children get vaccinated early. For children who are between the ages of 6 months and 9 years of age, if they have never received a prior flu vaccine, they require two doses to be protected. Those doses have to be separated by at least four weeks. So it's important to give that first dose as early as you can, so they can get that second dose four weeks later and be protected.

Again, we know that younger children are particularly susceptible to serious flu complications. But the good news is, young children are actually more responsive to the flu vaccine than adults. As you've heard, during this past season, flu vaccination coverage was greater among children (63 percent) than adults. This is really due to our pediatricians who drive home the importance of immunizations, particularly with flu vaccine. But 63 percent is not acceptable. We can and we must do better.

Flu is a perfect example of an immunization [for which] it's important to vaccinate across the lifespan: vaccinate 6 months and older for flu. And remember, children do not grow up in a vacuum. There are parents. There are grandparents. There are siblings. The mother may be pregnant. There are babysitters. There are caregivers. So we really miss an opportunity if we do not vaccinate the child; but also, if we do not vaccinate everyone in that child's environment.

Vaccinating pregnant women is very important. I think that's another point that we have to get across to the public. Pregnant women are more at risk of most infections, particularly viral infections. They can be deadly, and particularly, the flu. As you have heard, if the pregnant

woman is vaccinated, then the infant, for the first several months of life, actually receives protection from the mother. That's extremely important, because we do not vaccinate children with flu under 6 months of age.

I often talk to parents who are hesitant about getting their children vaccinated. You have heard the car seat analogy--I think it's a great one. What parent would start a car, and drive off with their child not restrained in a car seat? No good parent would do that. So why would you not vaccinate your child against the flu, when you know down the road, that child will be exposed and is susceptible to flu-related complications?

So, let me be clear, we know that the flu vaccine isn't perfect. We all know that it will not provide 100 percent protection. But it will reduce the severity and duration of disease. And it will save children's lives. So finally, please: Everyone get vaccinated. It's good for you. It's good for your children. It's good for your family. And when children are healthy, we all win. Thank you so much.

[applause]

WILLIAM SCHAFFNER, MD: Thank you, Pat. That was also a stirring message. And I would now like to hand it over to Dr. Bill Borden, who will talk about influenza and chronic illnesses. Bill.

WILLIAM B. BORDEN, MD: Thank you. Well, good morning everyone. As Dr. Schaffner mentioned, I am a cardiologist. Before you wonder if I stepped into the wrong press briefing, I hope I will convince you why this is important. I am a preventive cardiologist, and I work with many patients who have heart disease, but also have many other chronic conditions. To echo the comments that have been made today, flu vaccination is critically important. Particularly in patients who have chronic conditions, I know firsthand how critically important that is.

This time of the year is one of my favorite times of the year in clinic, because we see patients coming in really empowered to keep themselves healthy. From when they check into the front desk, when they're brought back to get their vital signs, to when they see me, I hear patients with heart disease saying, "Hey, can I get my flu shot?" Absolutely. We're happy to offer it. I get it. My colleagues get it. And if patients don't ask, we're certainly going to ask them about it, and encourage them to get that flu shot.

So as I mentioned, I'm really encouraged by patients who get this preventive measure of a flu vaccine, because they're significantly lowering their risk of respiratory and cardiac complications in the winter months. But not everyone is so proactive. As you heard from Dr. Schaffner earlier, among the NFID survey respondents who do not plan to get vaccinated against the flu, a quarter of them have an underlying condition that makes them more vulnerable to the serious consequences of the flu.

Unfortunately, flu infection is often just the beginning of the problem for certain patients with chronic health conditions, like heart disease, asthma, and diabetes. An often unrecognized danger of the flu is that the resulting inflammation may last for several weeks after the acute infection. This inflammation often can worsen a person's underlying disease and may lead to complications like heart attack and stroke.

Last season, approximately 93 percent of adults who were hospitalized for flu-associated complications had one underlying medical condition. The most common among those were cardiovascular disease, metabolic disorders like diabetes, obesity, and chronic lung disease. Unfortunately, this trend is bound to continue. Estimates indicate that 31 percent of US adults age 50 to 64, and 47 percent of those age 65 and older, are at high risk for flu complications due to chronic health conditions. As the US population ages, this is going to become even more of a problem.

So, given that I am a cardiologist, let's talk about heart disease and the flu. You know, I can tell you each winter, hospital wards are full of patients who have heart disease coming in with complications related to the flu. We see this year in and year out. And it can be reduced. In fact, a recent study showed that people with underlying heart disease who have the flu are six times more likely to have a heart attack within the first week of a lab-confirmed flu infection.

But heart disease isn't the only chronic condition for people who should get flu shots. Among patients with respiratory or metabolic disorders, we see very similar statistics. This is true even when the chronic condition is well controlled with lifestyle management and medications. For example, we know that in asthma, the flu increases inflammation and can increase the rates of pneumonia. In patients with diabetes, the virus can interfere with the management of blood sugar levels, so much so, that patients with diabetes are three times more likely to die of flu complications, and six times more likely to be hospitalized.

But there's hope, because fortunately, there is a highly effective, safe step that people can take, especially those with chronic conditions, to prevent the flu and stay healthy: the flu shot. It's really simple. You've heard quite a bit today about the importance of a flu vaccine, even if it provides only partial protection. I can tell you that the flu vaccine has a protective effect in patients with chronic conditions. In fact, in people with heart disease, we've seen that annual flu vaccination can be as effective as other preventive measures like smoking cessation and taking statin medications to lower cholesterol. In fact, in one study, flu vaccination reduced the risk of cardiovascular events by 53 percent among people who have had a heart attack in the last year.

Annual flu vaccination has been shown to improve outcomes for patients with lung disease and diabetes too. This includes everything from improving chronic obstructive pulmonary disease (COPD) exacerbations to reducing hospital admission rates for stroke, heart failure, and other causes of death in patients with type 2 diabetes.

Now I want to change gears for a moment. You've heard today about pneumococcal disease, and it is really important to emphasize pneumococcal disease as well. Because, in addition to the flu, we know that people with chronic illnesses who have immuno-compromised conditions are at greatly increased risk for pneumococcal infection. Yet, as Dr. Schaffner mentioned, among the at-risk population who responded to the NFID survey, nearly half had not heard of pneumococcal disease.

Flu season is the perfect time to have a conversation with your healthcare professional about pneumococcal disease, because the vaccines can be co-administered with the flu vaccine, in a single visit. Pneumococcal disease is common and a deadly complication of flu. These two things go together.

You've heard from the panel today about the importance of everyone age 6 months and older getting vaccinated annually. I'll echo that sentiment. The American Heart Association and the American College of Cardiology both recommend flu vaccination for individuals with established cardiovascular disease. It is a key part of preventive care. But the recommendation also really applies to anyone with chronic health conditions. Bottom line: Vaccination against flu and pneumococcal disease must be a part of the disease management for individuals with chronic diseases.

I make sure that my staff and I get vaccinated, because it is important for our patients. My patients are my top priority. And every fall, I make sure they get vaccinated as well. My staff talks with them about flu vaccination. It's critical. We as healthcare professionals need to insist upon annual flu vaccination for all of our patients, and particularly for those with chronic health conditions. We need to especially inform our patients living with heart disease, lung disease, and diabetes that flu can exacerbate their condition, or trigger an event.

By getting vaccinated against flu and pneumococcal disease, we can all keep ourselves healthy and prevent these potentially deadly infections. Thank you.

[applause]

WILLIAM SCHAFFNER, MD: Thank you, Bill. That concludes our formal presentations today. Before we open up our Q&A, we'd like to take a few moments to give some attention to our Leading by Example initiative. Every year, NFID calls on community leaders in healthcare, business, education, and politics to lead by example, by making a commitment to influenza prevention.

We're now going to have Secretary Azar and Mark May lead by example, by getting their flu vaccines on camera. Mark, as you know, is a former Washington Redskins NFL player, and the 1980 Outland Trophy Winner. NFID is a proud sponsor of the Outland Trophy this year. Mark is also an NFID #FightFlu Ambassador, and will be getting vaccinated today. He's going to encourage everyone to get vaccinated to tackle the flu. And remember, when you get vaccinated, you protect both yourself and your team.

SECRETARY AZAR: Not even going to notice it. When does it start? [laughter] Excellent. Thanks very much. [applause] Thank you very much. Painless. [laughter]

WILLIAM SCHAFFNER, MD: He's so strong. [laughter] He may bend the needle.

MARK MAY: I used to have muscles years ago. [laughter] Okay, thank you. [applause]

WILLIAM SCHAFFNER, MD: You set a great example, fellows. Thank you very much. So we call on everyone to follow the lead. After the Q&A, we'll have a flu vaccine clinic available for everyone here. Thanks in advance for participating. And thanks also to MedStar Visiting

Nurse Association for administering the flu vaccines this morning, and providing this valuable service.

Thanks both to Secretary Azar and Mark May. We're grateful to both of you for leading by example in getting vaccinated. Thanks to our panelists also. Now, the Q&A. Note that this portion of the event is reserved for questions from the media focused on flu and pneumococcal disease topics. Please indicate if you have a question, and one of our staff will come over with a mic. Please be kind enough to identify yourself and the media outlet you represent. For media participating by teleconference, the operator will come on the line momentarily to advise you to submit your questions. If any of you would like to schedule one-on-one interviews with the panelists, one of our staff will be happy to arrange that. I'm happy, now, to open the Q&A. And I have one other small housekeeping matter. The Secretary will have to leave absolutely promptly at 10:25 AM. So I ask for your understanding.

DONNA YOUNG: Hello. Donna Young from S&P Global News. My question is for Secretary Azar. So last week, when the President issued his executive order on the flu, the officials on our press briefing call had a difficult time explaining what this executive order would actually do. These are longtime officials working in the government, and they could not explain what the executive order would actually do, other than putting together yet another taskforce. There's been several over the past couple of decades. The vaccines that they've been working on, they've been working on for years. There's already been a longtime push to get away from egg-based vaccines. So what will this executive order actually do when there's no funding tied to it, no incentives tied to it? How are you going to get industry incentivized when there's nothing there for them?

ALEX AZAR: So we actually do have hundreds of millions of dollars within the HHS budget, as well as the Defense Department budget that's dedicated around flu, both seasonal flu and pandemic flu preparedness. One of the critical things we need to do is update how we make the

flu vaccine. Our vaccine is safe and effective, but we're doing it still the old fashioned way. Most of our flu vaccine in the United States is made, cultivated in eggs. We actually use 900,000 eggs every day for 6 months to make our annual flu vaccine here in the United States.

That's great for what's predictable, and what we're dealing with today. But we also need to be able to innovate with recombinant technology so we can get an even more precise, more effective vaccine. We need to ensure that we have the ability to make our vaccine using cell-based production capabilities that aren't dependent on the availability of 900,000 eggs every single day for 6 months, and so we're not dependent on that, particularly if we're facing an avian influenza strain.

We also need domestic production capabilities, because in the event of a pandemic, we can't count on even our friendly allies making sure that the supplies will be made available to us. So this is an effort I personally have been engaged in since the Bush administration on our pandemic preparedness, which is ensuring that we have the domestic infrastructure, and we're moving towards the highest quality, lowest cost, fastest production of flu vaccine. The executive order pulls all of that together. And then funding will follow through annual budget cycles and appropriations with Congress. But it organizes the existing hundreds of millions of dollars that's already part of HHS and DoD funding and says, "This is the priority area which is organized by the executive order."

DONNA YOUNG: For the past three budget cycles, they've actually called for funding cuts to vaccine programs. NIH—

ALEX AZAR: Donna, that's just not right. We have not called for any cuts to funding for flu or pandemic flu. That's just not accurate. Sorry.

JEANIE BAUMANN: Hi, Secretary Azar. Jeanie Baumann from Bloomberg Law. I know that you've said that flu is the number one thing that keeps you up at night. But do you have any concerns that the policy by customs not to vaccinate people coming from the southern border can undercut some of the work that you've been doing to address the flu season?

ALEX AZAR: So our role at HHS is, of course, to take care of unaccompanied alien children, the UAC program, who come across the border unaccompanied, and come to grantees that we fund. Those children receive the full suite of CDC-recommended vaccinations within 48 hours on arrival at UAC facilities. Obviously, customs and border patrol has to deal with the logistics issues, and their own situation there.

Our recommendations, from a public health perspective, though, are clear. They're exactly what I said in my remarks. And I think every panelist said the same. Which is that every individual over the age of 6 months for whom it's not contraindicated should receive the annual seasonal flu vaccine.

WILLIAM BORDEN, MD: And if I were just to add, I think that, you know, as a physician, and someone who works in public health, and as an American, I think that everyone, especially children, should have access to this potentially lifesaving preventive flu vaccine.

WILLIAM SCHAFFNER, MD: Further questions? Yes, please.

Q: This is for Dr. Whitley-Williams. As a pediatrician, it's more of a judgment-free zone than I think other doctors get when they're dealing with adults, because adults are more relaxed, because you're dealing with their children. So in this 51 percent that don't think flu vaccines work very well, in your estimation, how much of that is just giving people an out on surveys for laziness? [laughter] Like do we trust these survey results? I assume the 34 percent are just people

who don't like vaccines. But this other 51 percent, how do we motivate people to care enough to get into the doctor and do this better?

PATRICIA WHITLEY-WILLIAMS, MD: I think it is really through education. Education of the parents, education of the parents about the importance of the flu vaccine, also dispelling those myths that have to do with, "If I get a flu vaccine, I'm going to develop the flu." That is not true. [laughter] Another one would be, "I don't want my child to get another shot, another injectable." Trust me, a shot is certainly worth the danger of possibly getting flu, and especially flu-related complications. I mean it's devastating in a child who has a chronic condition, and you can believe it's just as devastating if you have a healthy child one day, and the next day your child is dying in an intensive care unit from flu, which is totally preventable.

WILLIAM SCHAFFNER, MD: We know that the vaccine is not perfect. But it does provide prevention. Think of the tragedy for parents to have a child die of influenza and its complications, and they're realizing that they had not vaccinated their child. That probably remains with them, deep in their hearts, for the rest of their lives. We ought to vaccinate all of our children. We all need to get vaccinated.

Other questions, please.

AARON WARNICK: Hi there. I'm Aaron Warnick from the Nation's Health. I guess this question would be for Dr. Whitley-Williams or anybody else who would like to chime in. We talk about education to sort of ward off vaccine hesitancy, and to reduce that. What tactics specifically are we talking about? Digital media campaigns? Are we talking about outreach to healthcare providers, to bring up these numbers for adults and seniors?

PATRICIA WHITLEY-WILLIAMS, MD: I appreciate that question. I would say all of the above. We actually are actively having a discussion with our pediatricians regarding what they

say to their parents, in terms of trying to educate them about vaccination, but, more importantly, about the safety of vaccines. For instance, rather than when the parent is there with the baby, we do explain each vaccine, what are the complications, etc., telling them, yes, the vaccines are safe. But at that point, to say, “You're here for your two-month visit. Your baby is going to receive protection against *Haemophilus influenzae* type b, and pertussis, diphtheria, and tetanus.” Rather than make it an option. Because there really is no option, when we have proven, over and over again, that we save children’s lives by vaccinating.

WILLIAM SCHAFFNER, MD: Pat and I are certainly on the same wave length here. As I said in my remarks, we need to diplomatically insist that patients be vaccinated, not give them an option to opt out, as it were. And part of what we’re doing is to educate people here today. And you all are part of that, to get the word out, about recognizing that it is not a perfect vaccine, but it still provides vast protection. And, importantly, protection against the complications of influenza, as Dr. Borden said. That’s as important as primary prevention.

Further questions, please? Comments?

Q: I do have a question, on behalf of the Hispanic media, and also the African-American media. Rates for vaccinations have been historically low. Could you tell us what those communities can do to try and raise those rates, please? And also, the issues that they're facing?

WILLIAM SCHAFFNER, MD: I think it’s very important that, number one, we reach out in ways to communicate with the minority communities in our country, and that we work with the leadership of those communities to actually educate those communities, bring them in, and to provide access, so that we can actually extend the benefit of vaccination to them. Colleagues?

PATRICIA WHITLEY-WILLIAMS, MD: I would certainly agree with that. I also would say, I am a member of the National Medical Association, which is an association predominantly

of African-American physicians. We know about the disparities, with regards to vaccination coverage rates, both in adults and in children. But we also know about the deaths and severity of disease related to flu and pneumococcal infections; there is a disparity there, in terms of hospitalizations and deaths among underrepresented minorities in this country.

It is through education. It also depends on that relationship between adult patients and their providers. Again, there should be no opt-out. Patients need to understand that they're tremendously at risk, and there is a disparity. As I think we all know, there is a historical context and a belief that exists in the African-American community, in terms of maybe mistrust of the medical system, because of experimentation that had gone on earlier. And again, it's trying to provide that information and education through providers.

There are many Latino and African-American physicians who have a practice that predominantly serves a population of the same ethnicity. We really rely on those providers to help us get the word out, as the press will. These patients trust their providers. We also need to involve community-based organizations to help us in getting the message out as well.

WILLIAM SCHAFFNER, MD: Thank you, Pat. And Mr. Secretary, thank you for your presence.

ALEX AZAR: Thank you.

WILLIAM SCHAFFNER, MD: Any last words?

ALEX AZAR: No. Just get vaccinated.

WILLIAM SCHAFFNER: I love it. [laughter] [applause] Further questions and suggestions? Seeing none, thank you for joining us today. As we do every year, let's hope for a mild influenza

season. Hope for the best. Prepare for the worst. But, as we heard from our panel of experts, our best defense is a good offense, right. So let's get vaccinated to help fight influenza and pneumococcal disease.

A video of today's news conference will be available on the NFID website at www.nfid.org. We'd now like to open up our onsite vaccination clinic at the back of the room. We've got plenty of vaccine for everyone here.

Once again, thank you for all that you do to get the word out about this important annual preventive medicine. Thank you very much.

[applause]

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