Advancements in Diabetes
Tobacco Free Living for People with Diabetes

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Alberta Becenti:

Thank you for the invitation to present today on Advances in Diabetes Seminar. My name is Alberta Becenti, I'm the Health Promotion, Disease Prevention Consultant with the Indian Health Service Headquarters in Rockville, Maryland. I'm originally from Crownpoint, New Mexico and a member of the Navajo tribe. I've been with the Headquarters in my current position since 2004, and I work with 12 IHS Health Promotion Coordinators throughout the country. Now, I'll go ahead and turn it over the Shawnell who will introduce herself.

Shawnell Damon:

Hello, I'm Shawnell Damon. I am the Health Promotion, Disease Prevention Coordinator here in Tucson Area. I am also from the Navajo Nation. I am from Sawmill, Arizona and I've been working here at the Tucson Area for the past six years.

Alberta Becenti:

Thank you. Now, we're going to go ahead and get started. This is our learning objectives for our presentation this afternoon. We're going to go over, describe in the regional and national American Indian/Alaska Native tobacco use, talk about the harmful use of exposure to second and third-hand smoke, and we're going to describe the connections between smoking and diabetes and other chronic conditions. Also, talk about smoking cessation and nicotine addiction to help smokers quit tobacco, and then to educate patients about the adverse effects of electronic cigarettes and vaping. Then at the end, identify one clinical or public health practice to change locally, to make improvement as far as tobacco cessation outcomes using GPRA indicators, measures.

This will be the outline of our presentation this afternoon. It looks like a lot, but we'll be able to cover this during our presentation this afternoon.

Background: smoking is the single most preventable cause of death in the United States. Each year, approximately 480,000 persons in the U.S. die from smoking-related illness. An estimated 41,000 of these smoking-related deaths is a result of a secondhand smoke exposure. Smoking has been estimated to cost the United States $96 million in direct medical cost and $97 billion in lost productivity each year.

First, I'm going to describe what is traditional versus commercial tobacco use. Traditional tobacco use is for sacred or ceremonial tobacco use, which they use tobacco plant, which is cultivated or collected

in the wild by American Indian tribes for a religious, ceremonial or ministerial use. Whereas, commercial tobacco use refers to the repeated consumption of the chemically altered nicotine containing products such as cigarettes, cigars, pipe tobacco, snuff or chew that have been cultivated, cured, manufactured and sold by a large corporation.

There is an estimated 43.8 million people or 19% of all adults who are ages 18 years of age and older in the U.S. who smoke cigarettes. Of that amount, 31.5% of American Indian adults in the United States smoke cigarettes as you can see from this graph.

When you're looking at cigarette smoking prevalence among American Indians by gender and ethnicity, you'll notice that the -- first, let me describe the darker maroon bar, which represents males, and the lighter bar represents females. As you can see, that cigarette smoking prevalence among American Indian/Alaska Native, adult and female is higher in comparison to the white, black and Hispanic or Latino population.

When looking at regional data on cigarette smoking, prevalence among American Indian/ Alaska Native adults by gender, you'll notice that the Northern Plains for both males and females is higher in comparison to other regions. Alaska males also hover near the same percentage of Northern Plains followed by female.

Next is cigarette smoking during pregnancy among women by ethnicity. What is concerning is smoking during pregnancy among American Indian/Alaska Native women. The slide indicates that American Indian/Alaska Native smoking during pregnancy is higher than any other ethnic group. It is very important to target prevention efforts towards the women of childbearing years, and to screen those who use tobacco, and to refer them to the tobacco cessation program.

Next is looking at cigar and pipe smoking among males by ethnicity. The dark maroon bar represents cigar and the lighter bar represents pipe. When looking at cigar and pipe smoking among males, again, American Indian/Alaska Native use these products more than any other ethnic groups as the white and the black population. They use more pipe tobacco than cigar.

When looking at chewing tobacco or snuff among both male and female by ethnicity, again, you'll notice the American Indian/Alaska Native use more tobacco or snuff products than the white and the black population.

And then, this slide represents smokeless tobacco use among American Indian/Alaska Native males by region. As you can see, when you make a comparison between the Northern Plains and Pacific Northwest, the Northern Plains use more smokeless tobacco products than the northwest region. I couldn't find any other comparison between these different regions. This is the most up-to-date statistics that I have found, so I don't have any updates for the other regions.

So why should we be concerned about tobacco use? Well, this table represents mortality rate disparities among American Indian/Alaska Native. When looking at mortality rates, you'll notice that disease of the heart is the leading cause of death, followed by cancer, and diabetes ranks number six. And when looking at cardiovascular disease, it's the eighth leading cause of death, and tobacco use is a risk factor for all these diseases.

When looking at smoking and diabetes, in fact, smokers are 30% to 40% more likely to develop Type II diabetes than non-smokers. And people with diabetes who smoke are more likely than non-smokers to have trouble with insulin dosing and with controlling their disease. No matter what type of diabetes a person has, smoking makes it harder to control it. Smokers with diabetes have higher risk with serious complications, including heart and kidney disease, poor blood flow in the legs and feet that can lead to infection, ulcers and possible amputation, retinopathy which is an eye disease that can cause blindness, peripheral neuropathy which is damaged nerves to the arms and legs that causes

numbness, pain, weakness and poor circulation. People with diabetes who quit usually have a better control with their blood sugar level.

What is the tobacco impact on health? Tobacco use accounts for at least 30% of all cancer deaths, causing 87% of lung cancer deaths in men and 70% of cancer deaths in women in the U.S. Cigarette smoking also influences other cardiovascular risk factors such as glucose intolerance and low serum levels of high-density lipoprotein cholesterol. However, studies have reported that smoking increases the risk of cardiovascular disease beyond the effects of smoking on other risk factors.

In other words, the risk attributable to smoking persists to even when adjustments were made for differences between persons who smoke and non-smokers and level of these other risks. Beyond its status of the independent risk factor, smoking appears to have multiplicative interactions with other major risk factors for cardio heart disease, high serum levels and lipids untreated, hypertension and diabetes. Other includes lung disease, emphysema, chronic obstructive pulmonary disease, and gum disease.

Secondhand smoking impacts on health, it has been linked to health concerns as non-smokers. Especially if children are exposed to secondhand smoke, there are greater risks for asthma which may become more frequent, and they may have asthma attacks. They also have a greater risk for sudden infant death syndrome, and may have problems with respiratory infections such as bronchitis and pneumonia, and respiratory symptoms such as coughing sneezing and shortness of breath, and they are higher risk for ear infections.

The secondhand smoke impacts on health. Well, there are over 4,000 chemicals found in secondhand smoke, and 69 of the chemicals cause cancer. In adults who have never smoked, secondhand smoke can also cause heart disease. For non-smokers, breathing secondhand smoke has immediate harmful effects on the heart and blood vessels. It is estimated that secondhand smoke causes about 34,000 heart disease death each year during the year of 2005 to 2009 among adult non-smokers in the United States, and also contributes to stroke.

Continuing on secondhand smoke: according to the American Cancer Society, secondhand smoke also causes 3,400 lung cancer deaths and 60% of all U.S. children ages 3 to 11 are exposed to environmental tobacco smoke each year. By the age of five, each of them will have inhaled the equivalent of 102 packs of cigarettes.

Secondhand smoke also impacts health. There's no risk-free level of exposure to secondhand smoke, even eliminating smoking indoor spaces does not fully protect non-smokers. Separating smokers from non-smokers, cleaning the air vents and buildings cannot eliminate exposure of non-smokers to secondhand smoke.

It is good to know that the Department of Housing and Urban Development, HUD, is proposing a rule to prohibit smoking in public housing. This is a national effort to protect non-smoking adults and children from exposure to secondhand smoke. After the final ruling, we, IHS will be expected to assist Public Indian Housing with the implementation of this ruling to increase awareness of public health effects of tobacco use and exposure to the secondhand and third hand smoke, to assist with the writing of the policy including exception of traditional tobacco use, and linking smokers with tobacco cessation programs, and to provide technical assistance as needed.

Third hand smoke is a residual of tobacco smoke contamination that settles in the environment, and stays there even after the cigarette has been long extinguished. As you can see, the third hand smoke is absorbed by the sofa and curtain and carpets in the home. The chemicals, particles resulting in the burning of tobacco including the tar and nicotine lingers on clothes, upholstery, and drapes long after the smoke has cleared. These particles are formed from more than 200 poisonous gases such as cyanide, ammonia, arsenic and plutonium-210, which is a radioactive.

Third hand smoke, according to a study in 2011, they found that third hand smoke causes the formation of hazardous carcinogen which occurs when the nicotine and tobacco smoke reacts with nitrous acid, a common component of indoor air.

Children of caregivers, parents who smoke cigarettes are especially at risk by third hand smoke exposure and contamination because tobacco residue is noticeably present in dust throughout the areas where smoking has occurred, as well as on hair and clothes. It is good to know that some tribes are establishing policies that address third hand smoke and childcare centers, where they require smokers to shower and change clothing before coming in contact with children.

Now, I'll go ahead and go turn it over to Shawnell.

Shawnell Damon:

We're going to talk about the e-cigarettes. E-cigarettes contain glycerol and glycerin, and they have a lot of different flavors that target children, so they have cinnamon, vanilla, coffee, bubblegum. The nicotine concentration varies per cartridge, so it depends on what kind of cartridge you buy, how much nicotine you're going to get. There are nearly 500 brands and over 7,700 flavors of different e-cigarette flavors.

The health effects of e-cigarettes. So, there's secondhand emission. They form aldehyde and benzene, and the big cloud that it leaves behind has air particles that still can settle in your lungs. There's secondhand aerosol exhaled by the users. There's no evidence that e-cigarette emission is safe.

E-cigarette users among American, among adults. E-cigarette use was higher in non-Hispanic American Indians and non-Hispanic whites than Hispanic, non-Hispanic black and Hispanic Asians. So in this slide, it says that we had the highest, non-Hispanic American Indian/Alaska Native had the highest use of e-cigarettes.

Tobacco dependence: we'll cover how to help people try to break the cycle of being dependent on tobacco. So most of the people out there actually want to quit, 70% of people do, 40% are trying to quit on their own, but only 7% are successful if they try to do it on their own. Tobacco dependence usually requires several interventions to break. So people who try to quit 9 to 10 or 11 times before they actually get it right. It is a chronic condition, most people have tried many times to quit, and it usually takes 9 to 11 times before they actually quit.

Why is it so hard? Nicotine is weaved in biologically, psychologically and socio-culturally. Tobacco use, dependency on nicotine is very addictive. It is compared to heroin, speed and cocaine. Many people who use nicotine, self-medicate for pain or psychiatric conditions like depression, anxiety or eating disorder.

The use of tobacco is also socio-cultural, which a lot Native American people use. I actually stepped to the slide ahead actually, but I want to go back and talk about socio-cultural. A lot of times, when we are hunting or gathering fish, we'll gather fish, and then we'll take a break. And usually, that break will sometimes incorporate tobacco. A lot of times, you have families who smoke, and then I've heard the young teenage girl say, "Oh, I just can't wait until I get old enough so I can go out there and speak and smoke with my aunties." So, it's definitely weaved in within our culture sometimes, depending on our tribes and our location.

So next, I want to go back to tobacco dependence. The first step entering tobacco use is just identifying who the users are and who really wants to quit. So we use the 5A model. It's evidence-based on best practices. We use the 5A model anytime, anywhere, it doesn't have to be always in

clinic. You can use it if you are just regularly speaking to anyone about any kind of health change that they want to make. You could use this for wanting to change nutrition plans, whether they work out. In this case, we're going to use it for tobacco.

The first thing you want to do is make sure you Ask. "May I speak to you about tobacco?" Ad they'll say yes or no usually. "Do you smoke?" And they'll say yes or no. If they do smoke, you want to offer a clear, personal advice for them to quit, so you have to make it personal to them. "If you stopped smoking, you will breathe better, and stop coughing, and will actually have less phlegm when you speak so that I can hear you better." That would be a personal strong advice to someone who might have like a chronic cough.

Then, you Assess. Usually, if they're not willing to quit, you'll see that they turn off right away, and that's okay. But like we said, most people actually really want to quit. Then if they want to quit, you can Assist them, and that's where you kind of say, "Well, I'm here to help." In our area, we have pharmacist that kind of know how to prescribe medication, and the doctors. And then, we have a lot of people trained in basic tobacco intervention, which uses this model. So, we don't have to be healthcare providers to use this model. So you can Assist them and say, "Okay. Well, I have CHR who can talk to you about tobacco cessation, and she help you be linked up at clinic if you want, or you can talk to your HPDP coordinator in your area, and they can also help you get coordinated with your clinic." And then, you can Arrange follow-up, and follow-up is very important for the first two weeks of quitting.

Like I said, you want to Ask at every encounter whether they smoke, chew tobacco, ever use commercial tobacco, what type of tobacco they use, have anybody in the house smoke or use tobacco. And then, you want to add it into the electric health record. I'm not sure if everybody uses EHR, but this is taken out at EHR. So you have tobacco smoke and you would classify the smoker. So if you have someone who smoked, but quit, they're former smoker. You want to make sure that if you do never smoke, that you actually -- they've never smoked, and you want to make sure you categorize them correctly.

The next part like I said is kind of Advise, a strong manner to urge the person to quit. This is where I usually -- when you ask a question, nurses just want to go on to assess the patient. But this is how, you have like a two little second message that actually makes it applicable to their personal situation, and they might be more willing to listen to you or they might not. But you don't know that until after you say what you need to say. So then, you would Advise them to quit, and then you can Assess.

If they're unwilling to quit, you say, "Okay. Well, I'm here to talk to you about it in the future, and I'll always Ask you because I definitely want to make sure that I'm helping you quit because it's better for you." And if they're willing to move on, you want to set a quit date within the next 30 days, and you also want to document that. This is under the wellness tab, and you want to go under education, and the events. You want to make sure it says, "Tobacco use quit." If anytime you have somebody that smokes, you always want to Assess them or tell them to quit. Even if they're not willing to quit, you still want to make sure that you click this button. This is the button that gives us at each IHS Area, and gives us GPRA points. So if you already marked the "Oh, they smoke" but you don't do this next question, then you're going to not really help your Area with the GPRA cessation.

Here are the stages of change of model, and this is where you can kind of just use other tool to see if the person is willing to quit. If the person is unwilling to quit, they have no intention to quitting, usually, they'll be like, "I don't really want to quit" or "not ready to quit" or "not even thinking about quitting." They might say those kinds of things.

Contemplation, you might get somebody who says, "Oh, maybe I'll quit in the future." And then, preparation of somebody that you get in your clinic, "Oh well, let me set this quit date within the next 30 days." It gives them time to think about it and prepare. And then, you get someone that quits. They actually quit using tobacco for less than six months, and then maintenance, staying quit. You have to

stay quit and tobacco free for more than six months. And then, termination, you're no longer living with the urges, and you have total self-efficacy, and then there's relapse. Relapse is a part of recovery. So even though people fall off the wagon or you start smoking or have a slip, it's better to just get back on and start preparing to quit again, and then quitting, as compared to staying off the wagon.

Here are some tools just in case somebody is unwilling to quit. You don't want to be judgmental. You don't want to give them the eye or anything or make any kind of weird sound. You just want to accept their way that they want to proceed. You want to develop discrepancy. You don't want to argue or have any kind of resentment, or resistance or try to change their mind. You kind of just want to roll with it, and you just want to ask them the next time around.

Here are another area where you could actually document. It's in education, and that's where you can also say, "Tobacco use quit." You see it down there, that's the big one. You can write if it they're unreceptive or not, but that's what we need to make sure we document. You don't have to keep doing all of the other parts where it says, "Tobacco cessation literature." That's if you give them a piece of literature. But as long as you persuade them or ask them to quit, you can do, "Tobacco use quit," whether they're unresponsive or whether they're not ready, or they're ready. You can just click on that one box. You don't have to keep going back and forth.

If they're willing to quit, you want to start a quit date, usually within the next two weeks. You want to like let them tell their friends. They want to anticipate challenges, so sometimes coffee is a trigger. Stress can be a trigger. You want to give them time to remove tobacco products from home and work, and you want to Arrange for follow-up, especially within the first two weeks after the quit date. So you want to follow-up with them.

You can also Arrange a consult, an in-house cessation program, so at -- I know in Phoenix Area, they have a cessation program. Here in the Tucson Area, we kind of have a little one. It's not documented as a policy cessation program, but we do have certified tobacco intervention specialists working, and then they could be your coach to help you do your quit date in 30 days. We also know the medications, so we can write a note to your doctor to maybe prescribe some nicotine replacement therapies, like the gum, the lozenge or the patch, the inhaler or the nasal spray. It depends on which nicotine replacement therapy you have, but we have all those here at the Tucson Area. If you don't have one, you could start maybe working with your pharmacy to incorporate some of those nicotine replacement therapies. And then, you can order appropriate pharmacology therapies, and also follow-up again within the next two weeks.

Tobacco cessation education or referral. It is a different indicator, so you want to make sure if you have any smokers that you suggest that they quit, and you document it. You want to always screen for tobacco use. Developing a tobacco cessation protocol is always a good place to start, and making sure your compound or your environment is tobacco free at the worksites. Those policies are actually very easy to write too, just to make sure that your worksite is tobacco free. And if there's no local tobacco cessation, each state has their own Quit Now. And if you dial 1-800-QUIT-NOW, it will refer you to your state cessation program, where they can give you a free gum, free lozenges or patches for two weeks, and kind of get you started on the path to recovery from tobacco.

You also may join us. We have quarterly tobacco prevention webinars. The next one is going to be May 18, 2016 at 3 p.m. We do provide basic tobacco intervention skills training, and it's evidence-based. And we do have some tobacco materials, postcards, and information that you can use so that you can use it in the clinic and get the word out. Here's our website, you can see tobacco free and culturally friendly and sensitive material. And here's our resources for this webinar. And if you have any questions, you can contact Alberta Becenti or myself Shawnell Damon. Here are the references. Any additional information can be found at these websites.