Holiday Eating With Diabetes
Webinar Transcript

Krista Davis: Good afternoon everyone and welcome to today's QIN-QIO regional support and sharing call, Holiday Eating with Diabetes. My name is Krista Davis and I'm a communication specialist at Quality Insights and your host for today's presentation. We'll get started in just a few moments, but first, a few housekeeping items. All participants entered today's webinar in a listen only mode. Should you have a question or a comment during today's call, we ask that you please type it into either the chat or the Q&A box to the right of your screen. To activate your chat box, click on the word, chat with the speech bubble in the bottom right corner of your screen. At the end of today's program, you'll be directed to an evaluation and post-test. Once completed, you will be presented with a certificate for you to fill out and print as proof of your course completion.

Even if you do not need the CEs, we hope that you will still complete the evaluation as it helps tell us how we did and how we can shape future programming. To complete the course, you must watch the 60 minute webinar and complete the post-test questions and evaluation in their entirety. 1.25 contact hours are approved for nursing. Quality Insights is accredited as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on accreditation. There are no identified conflicts of interest. After this course, we hope that you will be able to explain how all foods can fit there is no naughty list, develop two simple dietary substitutions for your adult patients, to identify two new updates related to fiber for adults and to describe how to get your patients the dietary help they need, including telehealth.

We have a lot of excellent information to deliver today. So without further ado, I'd like to introduce our guest speaker. Laura Baker is a registered dietician with a master's of science and human nutrition from Texas State University. For the past five years, Laura has been providing nutritional counseling for diabetes, eating disorders, pediatrics, sports nutrition, and other chronic conditions. She currently serves as the prevention policy coordinator at the Bureau for Public Health and as a clinical dietician at the Disordered Eating Clinic of Charleston. Laura is a wife to an outdoor enthusiast, mom to three energetic girls under the age of five, a trail runner, foodie and lover of adventure that takes place outside. She tries to practice balance in life, wellness and food and enjoys helping others to do the same. It is my great pleasure to turn the program over to Laura Baker.

Laura Baker: Well, thank you Krista. I appreciate that. I'm really excited to be here and hopefully give you guys some tips you can give your patients for holiday eating

with diabetes. So just to review, these are the four things I hope that you take away as you leave here today and step into the holidays. Before we get into the meat of things, I just want to point out a few highlights that we have. So I won't go over all of these numbers, but I will kind of highlight some of them. More than 34 million people have diabetes, and that more than 10% of our population. As you can see, 27% of those are 65 years older, which really affects Medicare coverage. Then prediabetes, if we look down, 35% of adults have pre-diabetes and only 15% are aware. So that's one in three. So pretty staggering numbers that you probably already are familiar with.

And then I do work with West Virginia as a prevention policy coordinator and as a dietician in the state. So I am aware of some of the numbers you have here, and I thought I would go over those. And I'll just highlight some of the things here. So we have the highest rate of diabetes, at 16.2%, and 45,000 people don't know that they have it. Each year, about 14,000 people are diagnosed. So a primary care practice, one of three patients over the age of 18 have pre-diabetes and over the age of 65, one of two patients. So as many of you know, it can take as little as five years to progress from pre-diabetes to diabetes.

Now I'll just recap the role of insulin. Probably many of you already know it, but let's just do a little recap about insulin and glucose homeostasis. So as many of you know, there are multiple factors that can cause our blood glucose levels to rise. But without a doubt, dietary carbohydrates has the greatest effect on blood glucose levels. So let's talk about the holidays. Let's imagine you've eaten your favorite piece of stuffing or maybe it's cake, that carbohydrate in the bread will break down to glucose and it gets released in the bloodstream causing your blood glucose levels to rise. And people without diabetes, the pancreas response to those blood glucose level by increasing the production of the hormone insulin. So you can think of insulin like a key that unlocks the cells and allows glucose to flow to the cells. So insulin literally plays a key in blood glucose homeostasis.

You think that this would be easy. Well, as you can see in this slide, it's definitely not. This is a simple, or maybe not simple, but it is an example of the fluctuations across a week for somebody that has type one diabetes. So as you look, you can see several different colors. So each color is a different day. And it's not that this person isn't doing the right thing or it's that managing your blood glucose levels is easy. It's extremely challenging to live with a chronic disease and to try and manage these blood glucose levels. So this is one week worth of data for type one diabetes. And you can imagine what if this happens long-term. And this patient wasn't given the right tools or resources or tips or referred to the right place. The long-term effects are not anything that most of you know, we want to mess around with. So there's kidney disease, there's blindness, neuropathy, heart disease, amputations. So we really want to provide our patients, even during the holidays, those tools and resources they need.

Since the discovery of insulin in 1921, which really was not that long ago, people have not only been able to lead longer life, but have been able to include carbohydrates in their diet. So if we look back then, prior to the discovery of insulin, during low carbohydrate or periods of even water fasting, those were the expected and only treatment methods for diabetes. So there is no doubt that insulin has extended the life of people with diabetes, and you're really grateful to have that drug utilized. But we also know that there's also no doubt that dietary carbohydrates have the greatest impact on blood glucose levels. And the great thing about that is that we can help our patients, help them manage that, show them what foods have those carbohydrates. So this is just probably a review of those complex carbohydrates and then the bottom right, you see the simple of carbohydrates that are slipping in someone's diet.

Then I wanted to move on, one size fits all just does not fit. There are a lot of trends and diets put out there. The new standards of medical parents in diabetes, 2021, just put those out this month and they reiterate that there's no ideal macronutrients. We know that calorie reduction is independent of weight loss. It improves the metabolic profile. We also know that several research studies show that weight loss of 5% is effective for decreasing hemoglobin A1C, which is one of those lab values we look at a lot with diabetes. And seven to 15% of weight loss yields more benefit. There is extensive evidence of several different eating patterns that are affected. So anywhere from the Mediterranean diet to the DASH diet, which is low sodium, the low carbohydrate plant-based, even the dietary guidelines, these have all shown to be effective.

And a couple of the diets that you may have heard a lot in the media are the low and the very low carbohydrate eating patterns. So this is a reduction of carbohydrates. It has the most evidence for glucose management, quality health. So what do those carbohydrates that your patient are eating, what do those look like? Are they those simple carbohydrates that you saw on that last slide or are they those complex carbohydrates? Very low carbohydrate diets or eating patterns are for select people. So we're not really sure about the long-term impact on glucose levels, the cardiovascular disease risk factors, or if it's sustainable for people.

So low carbohydrate diet, what we see in real life is that most people do go back to their usual macronutrient levels because they just get frustrated. It's not sustainable for a lot. And it's also, I highly recommend when you're talking to people about these diets they see on the internet, you then refer them to a dietician or certified diabetes education specialist, so they can provide them with the adequate information and need. So if they do want to go on this very low carbohydrate diet, they're eating the nutrients.

There's been some science around the gut microbiome and its effect on diabetes, and the need for high fiber foods, fruits, veggies, and legumes for that healthy gut microbiome to thrive. And some of these low carbohydrate eating

patterns, they don't include these foods that enhance the gut flora, which then influence blood sugar management as well. So carbohydrate recommendations for successful management of people with type one and type two diabetes, they're going to continue to evolve. And you'll probably hear as a source of controversy, nutrition professionals and professionals in diabetes education need to embrace the science of diabetes management, which requires an open mind and really diving into the evidence-based approach while still individualized nutrition recommendations for your patients.

So then we kind of get into the fun stuff of today's presentation. So the no naughty list. No one wants to be on the naughty list. The one thing I like to encourage with my patients is the enjoyment of eating. There's a lot of great resources out there. Intuitive eating is a really great resource you can even utilize for people that are having to manage diabetes. Reiterated again, there's no ideal percentage of calories from carbohydrates, protein, and fat. One of the things I hear a lot from patients is they've just recently been diagnosed with or maybe they've actually had diabetes for a while, and they've always been told they cannot have carbohydrates, they cannot have that piece of cake. And I just get really sad when that happens, because that's inaccurate. So really remember there's not an ideal percentage.

It must be individualized. So dependent on your patient, maybe they are a single mom and they can't cook every night. And so really meeting people where they're at. Dessert can be included, and that should be good news for the holidays. It's really about portion size. But I even, just utilizing your hand that your pumpkin pie be the size of your hand, but encouraging them to really enjoy their food. And as you see below with the intense focus on food labels and numbers, people are diagnosed with diabetes and having to manage it, looking at their weight, their blood glucose, their A1C and controlling all this.

There is a high risk factor for developing an eating disorder. So the ED-DMT that you're seeing and that's often known as bulimia. So this can happen at any age after the point of diabetes diagnosis. Some studies have found that 7% of adolescents with type one diabetes, and then one study found that up to 27% of females and 8.6% of males with type one had disordered eating and then type two, it spans a large percentage, five to 25%. So really emphasizing just the enjoyment of eating, especially during the holidays.

So another way to do that is to promote those healthy eating patterns by telling people, instead of taking things away, you increase non-starchy vegetables with some of those, there's a long list. But you have asparagus, Brussels sprouts, broccoli, carrot, cucumber. Also encouraging your patients to drink water even before they eat. Whole foods over processed food is always a good tip to give them. It must be sustainable for the individual. Another good thing is if you have visuals in your practice or where you work, this plate is really wonderful. People need a visual. They don't know how much is too much. So providing a plate where they can see how much protein, how much non-starchy vegetables and

how much carbohydrates can I really have, and this can be utilized even during the holidays.

So another thing to remember and encourage your patients is to check their blood sugar often to avoid any diabetic ketoacidosis occurrences from happening. So when should they do this? A lot of times, patients may not want to check their blood glucose or they may just not know. So in the morning is a really good opportunity, pre-prandial, so before they eat and postprandial, after they eat. And why should they do this during the holidays? During the holidays, a lot of times you have a meal that may be high in fat or high in protein, mixed with your carbohydrates. And so your blood glucose goes up at a different time. So checking your glucose two to three hours after eating may help them determine if additional insulin adjustments are required. Also, I really recommend that patients do not skip meals during holidays.

So what about fat? We hear a lot of information in the media about fat. The data is inconclusive on the ideal amount of fat, but the type of fat is really important. So we know that increased fat intake increases triglycerides. The liver becomes insulin resistant. Gluconeogenesis and blood glucose levels rise. This is where the type of fat matters. So saturated fat increases triglycerides. It has a bigger impact on insulin resistance. One of those things that you can do is avoid or encourage your patient or even yourself to avoid trans fats. If they look on the back of the ingredient list, you will see hydrogenated oils, and those are trans fats. Some results from recent high fat and or high protein mixed meal studies continue to support previous findings that glucose response to those, what I was talking about earlier, mixed meal time protein and or fat along with carbohydrates differs among individuals.

So a cautious approach to increasing insulin doses for the high-fat and or high protein mixed meals is recommended to address the delayed hyperglycemia that could occur two to three hours after eating and where that extra encouragement to your patients after they eat one of these meals to check their glucose, it's really important. We do know research shows that monounsaturated and polyunsaturated fat improved glycemic control and reduce cardiovascular disease risk. One of the myths I hear often is I can't have meat, meat is high in saturated fat, can't have it. Well that myth has actually been busted. So meat, 50% of it is made up of monounsaturated fatty acids. One thing you can do to remind your patients is to look for the words loin or round. So that's just a quick thing for them to look for so that they know what to substitute their meat for.

So as we talked about some simple substitution, from the red meat standpoint, you can substitute anything like salmon or pork loin would be a really good idea. Some people might not go for the salmon during the holidays, but maybe they would go for that pork loin. And these are really high in what we call PUFAs, polyunsaturated fatty acids, which have shown to lower LDL, total cholesterol, triglycerides, and even increase HDL. So this can be a really great substitution

for your patients. And even if they need a visual, you could print this off and give it to them so they can utilize. But we do know a lot of our patients with diabetes oftentimes had the co-morbidity of heart disease. So being knowledgeable about that, along with how those high fat meals do affect hyperglycemia.

And then butter, you could use olive oil in place of that, or even you don't have to completely replace it. If you're thinking of substitutions, you could always do half. So say if you wanted red meat and half salmon, or you wanted to use some butter and some olive oil. So this is just some tips for them. They don't have to completely substitute. You want to meet them where they're at.

So here are a few more substitutions. So sugar is a big thing. We know that that definitely elevates blood glucose levels. One thing to do would be to replace one cup of sugar with half a cup of blends. We do know research does show us that the non-caloric sweeteners do you have the potential to reduce overall calorie and carbohydrate intake as if you're subbing them for the caloric sweeteners and without compensation of intake of additional calories from other foods versus. Overall, people are encouraged to decrease both of these, especially when we're talking about sodas and decreasing soda consumption. But the non-nutritive sweeteners have shown to help with glucose homeostasis.

Another substitution that you may have already seen is you can substitute instead of the full-fledged mashed potatoes, recommend that they would substitute half of those potatoes plus cauliflower. It increases fiber, which we know fiber can delay that blood glucose spike. So this could be a good opportunity for them to play around in the kitchen and also reduce that carbohydrate intake in case they're going to indulge in a roll, or dessert later.

Another thing that I've seen some of my patients do, as we talk about the holidays and people wanting to have that glass of wine. Is it okay if I'm trying to manage my blood glucose? Well one thing they can do is they can substitute the complete wine with half sparkling water and half wine. And some people have really found that to be refreshing. They feel like they're getting a little bit more. Now your wine connoisseurs may not be into this, but you may find it helpful just as a tip for some of your patients. Also remember to tell your patients just the recommended amount of alcohol, 12 ounces of beer, five ounces of wine and one and a half ounces of distilled spirits, so that they don't have blood glucose be elevated.

What about fiber? As many of you all know, most Americans do not get enough fiber, unfortunately, and they're even links to diverticulitis due to decreased fiber intake. So fiber can slow down the conversion of enzymes that work on starch, which then slows down the conversion to glucose. We know plant-based diets of fruits and vegetables, nuts and seeds and whole grains are really high in fiber. So anytime you're thinking of something that has a skin on it, fruits that are, like an apple versus apple sauce. Apples are definitely going to have some

more fiber. Dietary fiber enhances our microbiome via gut integrity, increase satiety, improved insulin insensitivity and improved energy homeostasis and loss of excess body weight. So that we know that impact of dietary fiber on the microbiome. And many of you know that the microbiome also impacts our immune system. So that's something you can really encourage with your patients.

Now, even with our current circumstances with COVID, we really want our patients with diabetes to have an enhanced immune system. And any little advice that we can give them to do that, is great. Another thing about fiber is that it converts into short chain fatty acids, which is indicative of energy control and appetite control, and really regulates those blood glucose. Alterations in gut microbiome can affect metabolic pathways, such as insulin signaling, appetite regulation, incretin production and inflammation. And of course, I already mentioned keeping that immune system strong. So we really want to encourage that with patients as much as we can.

How much fiber do people need? Well they say 14 grams every 1,000 calories. Many of you know, you're not going to tell a patient, you need 14 grams per 1,000 calories. They just don't know how much that is. So one of the things I like to tell the people that I'm working with is to turn that food item, turn it over, look at the nutrition facts. Find the fiber. If you see greater than 10%, that is high in fiber and that could be a helpful item for you for regulating your blood glucose. Also, pointing to fruits and vegetables, things that are whole grain are things that are high in fiber. Oatmeal is really high in fiber. Although I will caution with that, sometimes oatmeal does tend to spike people's blood glucose levels more than others. So just that they would be aware of that.

So what about the glycemic index? Well, research has shown that it really only impacts if somebody is eating more than 50 grams a day. That is quite a bit of fiber. Research has also shown that there's no significant impact on A1C and there's mixed results on fasting glucose. So there's conflicting evidence of the effectiveness of this strategy of using the glycemic index for patients.

Also, just to give you an idea of in case you don't know what the glycemic index is, it reflects the magnitude of blood glucose increase for the first two hours, postprandial, on a scale of 0 to 100. So anything that is greater than 70 would have that high glycemic index. There are some things to consider. So the ripeness and storage time. Things that become more ripe are going to have a higher glycemic index. So if you're thinking about a banana, well bananas they ripen pretty quick. When they are black, they have a higher glycemic index. The processing of potatoes, the cooking method affects the glycemic index, the variety. Although I do want to point out that for some people that utilize the glycemic index, it really may be helpful for them in fine tuning their blood glucose management.

So I wouldn't completely discourage it. I would just make sure [inaudible 00:26:33] utilizing that, the limitations that are there. Studies show that the total amount of carbohydrates in food in general is a stronger predictor of blood glucose response than the glycemic index. So just so you know the evidence behind there supporting the type of carbohydrate is better than the claim for glycemic index. It only measures single foods, not the synergistically impact that foods have. So as you can see, pizza dough has an index of 80. While no one eats just pizza dough. But a Pizza Hut Supreme pizza has a glycemic index of 36. So it doesn't really consider the whole picture and the research is inconclusive. And you can see it on the picture of the piece of cake and the tortilla. You wouldn't imagine that. But because the piece of cake has that fat in there, it lowers the glycemic index, it slows down digestion.

So what about referring patients? Well, the ADA standards of care for 2021, they still highlight the four critical times to refer patients. So we know this is at diagnosis, this is annually, when our patients don't meet their treatment targets and when there are complicating factors. So I would suggest that COVID-19 restrictions and things that have been happening this last year fall into number four complicating factors. So it is really important that you notice those timeframes as critical points. Then we can refer our patients for the help that they need.

Some resources that have been helpful for patients that I've seen are the diabetes self-management education classes, which you can get them connected in one of those classes. And there are a lot of great resources, great programs, they're doing things online. So as we still have restrictions in place, people can get connected through those virtual classes. Then we also have the National Diabetes Prevention Program, and these also have some resources and classes that are done online. Medical nutrition therapy, so having a dietician that can provide one-on-one nutrition counseling via telehealth, if needed, or if a patient feels comfortable going in with a mask, they can do that.

Here in West Virginia, we have West Virginia Health Connection Database for programs to refer patients to. So this is a really great resource and it might be in some other states as well, but the purpose is to close that community clinical gap. So creating a linkage between our community and our clinical providers, and people can go on this website, nurses, nurse practitioners or even the patient themselves, and find the classes that are available for them. So it's a really great resource helping to bridge that gap. Telehealth services in the light of COVID, there have been a lot of revisions to coverage and reimbursement. It is different in each state and where you practice may have some different entities. But things have been expanded to include Medicare coverage for telehealth services in the light of COVID.

And so that's about all I have for my presentation. If we can move to questions, I'd be willing. We have plenty of time to do a Q&A. So Krista, I'll hand the mic over to you if you want to do that.

Krista Davis: Thank you, Laura. And as Laura mentioned, we are now entering the Q&A portion of today's program. So if you have a question for Laura, we invite you to please type it into either the chat box or the Q&A box on the right side of the screen. And we'll go ahead and get started with the questions that have come in so far. So Laura, our first question is why do you think the number of diabetics in West Virginia is so high compared to other states?

Laura Baker: There are a lot of varying reasons, but some of it is our social determinants of health and the care that is needed and just patients getting to those tools and resources they are needing, the amount of healthcare providers we have, the programs that are available. I think education is a big piece of that.

Krista Davis: Thank you. And our next question is, for patients that have fluctuating blood sugars, very high to very low within one day, as your graph showed earlier in your presentation, what do you suggest would help with their diet in order to regulate those fluctuations?

Laura Baker: As I mentioned before, it's really individualized. So without seeing a patient and looking at their labs, it's really hard to give a validated research-based individualized recommendation for a patient that's just high and low. So what I would do first is I would talk to the patient, see what they're doing in the morning. They could be simply having something, naked carbohydrates. I don't know if you've heard of that, but a naked carbohydrate would be just maybe they're just having oatmeal and nothing else. And so those blood sugar levels are skyrocketing in the beginning of the day. And then maybe they are skipping, they're not eating regularly. So that's something I highlighted too, was to make sure they're not skipping meals because then blood sugar plummet. So I'd really try and go back and dive in deep with them and see, what does your day look like? Tell me the day in the life of Sally from when you wake up to when you go to bed and what do you eat. Yeah, it's hard to give a recommendation without seeing the whole picture.

Krista Davis: Thank you. Our next question is what are your recommendations for patients who live in food deserts and have very limited access to fresh foods, specifically those patients that are eating a lot of boxed and canned goods?

Laura Baker: That's a great question. So there are stipulations on food banks, and they're even trying to get stipulations on some of the Dollar Tree or Dollar General stores to provide more fresh fruits and vegetables. But if you don't have that option, I would say frozen has been shown to have the same nutrient value as fresh. So if you can select those frozen vegetables, then that would be great. But it's even more important to look, are they non-starchy or starchy? So all foods can sit, even those frozen foods can sit, and sometimes they're they're equal. So they're equal as far as raising that blood sugar or not. So fresh corn versus frozen corn, that is equal as far as the research and what they've found to be true. But also getting connected with the programs in your community, the resources to see maybe what the options are, or a local dietician or farmer's

market that even some of the farmer's market, they offer snacks. And so that would just be a good resource to use.

Krista Davis: Thank you. And our next question is, I enjoy reading research on nutrition education. And as you, I try to keep an open mind. I recently read the book, The Complete Guide to Fasting by Jason Fung MD. He works with diabetics and has seen great results with patients fasting. What is your experience and thoughts on fasting?

Laura Baker: I do think, just like I said before, there are several different diets that people can do. There is limited research about intermittent fasting and its effect on blood glucose. My only concern there is patients with blood glucose values that are not checking them, and then they are fasting for long periods of time and their blood glucose is dipping down into really scary areas. So it is one of those diets, like the very low carbohydrate diet that needs to be paired up with an expert so that then they're able to guide them and lead them through a plan that is going to be helpful and nutrient dense and not put them in these areas of highs and lows.

So if you have a patient and they're willing to take their blood glucose, at minimum three times a day, and they are a go-getter and they're willing to do that, then I think if they have the right dietician who's guiding them through, it could be helpful. But yeah, do your due diligence and look at the research on intermittent fasting. I commend you for being interested in that and taking up your own time to research and look at the Academy of Nutrition and Dietetics, they have some information on that too. And the ADA, it's always a good resource as well.

Krista Davis: Thank you. And we do not have any other questions currently in the queue. Go ahead.

Laura Baker: I was just going to say someone messaged me and yes, I would say they're talking about the West Virginia population and the impact of diabetes, why is it so high, poverty being one of the roles in social determinants of health. And yes, I would say poverty is a huge indicator and really getting people the care that they need. Or even when we were talking about earlier access to food and food desserts, and that is a big issue too. When people go into a convenience store and get chips and soda, and that's their breakfast, that has an impact down the road because we know that down the road that leads to obesity, which then can lead to diabetes. So I definitely agree with you, poverty does play a role in the social determinants of health.

Krista Davis: And I'm just waiting another couple of seconds here to see if anybody else has any other questions or comments. We have reached the end of what has been submitted so far, and I don't see anything else. So I guess we have reached the end of our program a little early. So we'll give you some time back. If it's

snowing where you are, it gives you a little extra time to either shovel out or get home safe and sound. So any final words, Laura, for our audience?

Laura Baker: Thank you guys for having me. I hope everyone has a wonderful holiday and I hope you got some tips to provide for your patients how they can better manage their blood glucose and enjoy holiday meals.

Krista Davis: And thank you all very much. On behalf of Quality Insights, we hope you have a great rest of your week and a happy holiday.

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