CDC/National Diabetes Education Program

Food Insecurity and Its Impact on Diabetes Management: Identifying Interventions That Make a Difference

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Transcript

FOOD INSECURITY AND ITS IMPACT ON DIABETES MANAGEMENT

Michelle Owens-Gary: Welcome to today's NDEP webinar, "Food Insecurity and Its Impact on Diabetes Management: Identifying Interventions That Make a Difference."

WELCOME

My name is Michelle Owens-Gary, and I'm a behavioral scientist at the Centers for Disease Control and Prevention Division of Diabetes Translation in Atlanta.

TODAY'S PRESENTERS

Today I'm honored to present a fantastic panel of experts. Our first presenter is Dr. Victoria Mayer, who is an assistant professor in the Department of Population Health Science and Policy and in the Department of Medicine at the Icahn School of Medicine at Mt. Sinai. Dr. Mayer will be followed by Dr. Monideepa Becerra. Dr. Becerra is an assistant professor in the Department of Health Science and Human Ecology and coordinator of the Master of Public Health program at California State University, San Bernardino. And our third and final presenter is Dr. Gary Ferguson who recently joined the Rural Alaska Community Action Program as its Chief Executive Officer.

DEFINITIONS

Victoria Mayer: I'm going to start by sharing some common definitions of food security, food insecurity, and hunger. The United States Department of Agriculture defines food security as "access at all times to enough food for an active and healthy life". Food insecurity, on the other

hand, is the “household-level economic and social condition of limited ability to acquire adequate food.” Another commonly used definition of food insecurity is “whenever the availability of nutritionally adequate and safe food or the ability to acquire acceptable food in socially acceptable ways is limited or uncertain.” Food insecurity is different from hunger. Hunger may result from food insecurity, but it is “an individual-level physiological condition,” which may be defined as “the sensation caused by involuntary lack of food.”

ADA STANDARDS OF MEDICAL CARE FOR DIABETES – 2017 - “TAILORING TREATMENT TO REDUCE DISPARITIES”

These items, or these quotations, are from the ADA Standards of Medical Care for Diabetes from 2017 in the section “Tailoring Treatment to Reduce Disparities.” The ADA states that “providers should assess social content, including potential food insecurity, housing stability, and financial barriers, and apply that information to treatment decisions.” “Patients should be referred to local community resources when available.” “Providers should recognize that food insecurity complicates diabetes management and seek local resources that can help patients and the parents of patients with diabetes to more regularly obtain nutritious food,” and that “providers should consider risk of hypoglycemia in medication decisions.”

FOOD INSECURITY AND DIABETES

So, a study was done recently looking at a systematic review. So, this is when they take all the studies published in North America and try to find a cumulative summary of what the studies have shown. And, they noticed the higher the rate of food insecurity, the higher the rate of diabetes. So, diabetes rate among those who were food insecure in the United States was 10.2 percent. But, when you compared to those who are food secure, it was 7.4 percent. And, it’s not just those who were food insecure. The researchers then broke that down into different levels of food insecure. So, mild food insecurity or severe food insecurity. When looking at the diabetes rate among mild food insecurity, it was 10 percent. When you look at diabetes rate

among severe food insecurity, it went up to 16.1 percent. So again, a much larger percent of those who were food insecure, severely food insecure, had type 2 diabetes rates.

FOOD INSECURITY AND DIABETES

There were several other studies, and I will only mention a few of them, have shown similar trends. In the longitudinal study, again, this is where the population is followed over time, they've shown that, if a population is food insecure, they're 50 percent more likely to have type 2 diabetes. The patients who are food insecure are also—have a higher rate of type 2 diabetes even after accounting for everything else. For example, lifestyle factors, smoking, drinking, physical activity, income level, employment. Even after accounting for all of that, if you are food insecure, two to three times more likely to have type 2 diabetes. A similar trend was also shown with food insecurity and gestational diabetes, and we know gestational diabetes could potentially lead to type 2 diabetes in the long term.

BURDEN ON HEALTH CARE COST

One of the major things that we also noticed is looking at the healthcare burden of food insecure individuals. This is not just about what happens to the health outcome, but also are they spending more money because of worse health outcomes? National Health Interview Survey, which is a large-scale national study, it is not limited by the issue we have with small data where we cannot generalize to the population. Because they use Census information to make these data weighted to represent the entire United States, we can draw larger conclusions for the U.S. population.

And, one of the studies, they showed a dose-dependent relationship, which means the higher the food insecurity level, the less diabetics [people with diabetes] were to use medication. And, this was even higher among racial ethnic minorities as well as those who had more than one chronic disease. A similar study using the same database also found that one in six patients who have diabetes were also food insecure. And, if they were food insecure, they were less

likely to use medication, they were reducing the medication, they were delaying it or avoiding it because it's financially hard to afford medication.

A smaller study, however, found that diabetic [people with diabetes] patients who were going to food banks, kitchens, or soup kitchens were actually one-third of them were paying for medication versus food.

FOOD INSECURITY AND HEALTH CARE UTILIZATION-DIABETES

This slide really talks about in California Health Interview Survey, which is the largest state health survey looking at emergency department utilization among diabetics [people with diabetes]. And, diabetics [people with diabetes] who were food secure, they reported a rate of ED utilization at about 7 percent. But, food-insecure diabetics [people with diabetes] actually visited the emergency department a lot higher, nearly at 13 percent, showing a much higher rate of healthcare utilization. This higher rate of healthcare utilization means higher co-pay, higher medical bill, which means we're going back to the same situation where patients are having to choose between food versus healthcare—what they need to maintain their health services.

IMPLICATIONS

And, our previous researcher already mentioned SNAP. And, the research does in fact show that SNAP reduces the burden of food insecurity. However, this is not true for all populations. A study in California, which has one of the largest Hispanic populations, showed that Hispanics, even when eligible, are less likely to participate in SNAP. And, that is often because of lack of knowledge, stigma, the healthcare costs, which limits their ability to want to apply to SNAP, as well as transportation. And, this is where a *promotora* model or *promotoras*, which are community health workers, can come in very handy. It has been shown to be useful in small scale and Mexico-Texas border, as well in small parts of California, where community-based resources that are promoted by community health workers or *promotoras* can reach that population that are stigmatized by participating in SNAP. This has also shown some potential

with the veteran population but hasn't been pilot-tested in a large scale, where community health workers can reach the veteran population and marginalized population to make sure they're registering for SNAP or even if they're reducing the stigma and addressing transportation.

136% INCREASE IN DIABETES IN ALASKA NATIVE PEOPLE

So, shifts in diet. When you look a changing diet from a more traditional diet to a more Western diet, you see trends, and we know that stress and that was a big component. I just want to highlight that it isn't just always about the food. It's also about the stress. In the native community, there's a big push to understand and help alleviate the trauma that's connected with historical trauma and helping people to address inter-generational trauma, which is connected also to chronic disease, including diabetes.

DECOLONIZING HEALTHCARE

Now, I'd like to talk about decolonizing healthcare, where we look at food and food as medicine. It's a really important concept for our traditional peoples, and it's such a rich way that we're decolonizing our healthcare and our food systems, and there's a lot that has been highlighted already.

TRADITIONAL FOODS IN NATIVE AMERICA

I just want to draw our attention to CDC's work that has already been highlighted around traditional foods across America. And, in our native communities, there's some amazing resources that have been highlighting some of these best practices in local food systems and traditional foods.

TTHE STORE OUTSIDE YOUR DOOR

And one of them, The Store Outside Your Door, which I've been a part of since 2006, which is a— this is our YouTube channel, where you can watch a very short video on how to hunt, fish, gather, and grow your own food. And we connect it to culture, language, and elders, and youth.

There's a lot of components that we look at, sharing this knowledge with our next generation and preserving this knowledge. And, since then, some of the elders we worked with have already passed. So, we're feeling very blessed to have captured the wisdom that they share with us. And also part of the CDC, Native Diabetes Wellness Program, there is many programs across the nation that have been highlighted that you can go online and learn more about these programs to and [ones in] Alaska.