

Good afternoon. I'm Commander Ibad Khan and I'm representing the Clinician Outreach and Communication Activity, COCA, with the Emergency Risk Communication Branch at the Centers for Disease Control and Prevention. I'd like to welcome you to today's COCA call, COVID-19 and Diabetes: The Importance of Prevention, Management and Support. Continuing education is not offered for this COCA call. All audience joining us today are in listen-only mode.

After the presentation, there will be a Q and A session. You may submit questions at any time during the presentation. To ask a question using the webinar system, click the Q and A button at the bottom of your screen, then type your question in the Q and A box and submit your question. You can click the CC button in Zoom to enable closed captioning. The button is located either on the top or bottom of your screen.

The video recording of this COCA call will be posted on COCA's webpage and available to view on-demand a few hours after the call ends. If you are a patient, please refer your questions to your healthcare provider. For those who have media questions, please contact CDC Media Relations at 404-639-3286 or send an email to media@cdc.gov. I would now like to welcome our presenters for today's COCA call.

We are pleased to have Dr. Celeste Philip with us today as our first presenter. Dr. Philip is the deputy director for noninfectious diseases at CDC. In this position, she's responsible for providing leadership and guidance to CDC's four noninfectious disease centers and helping to advance the agency's cross-cutting noninfectious disease priorities such as preventing prediabetes and diabetes, ending the opioid epidemic, reducing birth defects and developmental disabilities and protecting the public's health from environmental hazards. Currently, Dr. Philip is serving as a deputy incident manager for CDC's COVID-19 response. Our second presenter is Dr. Ann Albright. Dr. Albright assumed the position of director of CDC's Division of Diabetes Translation in January 2007. From 2003 to 2004, Dr. Albright served as a senior health policy advisor in the office of the United States Surgeon General and led the secretary of health's diabetes detection initiative. Dr. Albright has served in key leadership roles including president of healthcare and education for the American Diabetes Association. She's the recipient of several prestigious awards including the lifetime achievement award from the American Association of Diabetes Educators. Dr. Albright is well-known for her work in diabetes and widely published in the areas of exercise, nutrition, body composition, diabetes complications, diabetes surveillance and public health approaches to diabetes prevention and management.

Joining us during the Q and A session today is Commander Sharon Saydah. Commander Saydah is an epidemiologist and senior scientist in the Division of Diabetes Translation. Commander Saydah joined CDC as an epidemic intelligence service officer in 2003. Her work focuses public health research on surveillance of diabetes among youth and young adults along with prevention of diabetes and its complications. She's currently working with the epidemiology task force of CDC's COVID-19 response. I would now like to turn it over to Dr. Philip for opening remarks. Dr. Philip, please proceed.

Thank you, Commander Khan. And good afternoon or good morning to all of our participants, depending on where you are. As a part of the COVID-19 response for CDC, I'm reminded every day how important various diseases that are of non-infectious nature play a role in the underlying risk that individuals face for COVID-19 or other similar infections. And when they are novel, there is so much that's unknown. So really thank you for joining us today as we talk through some of our initial findings. Next slide.

So not surprisingly, individuals with diabetes are at an increased risk for severe COVID-19 illness, which includes hospitalizations, ICU admittance, ventilator use and death. Among individuals who have died because of COVID-19, diabetes was a common chronic disease. Almost 50% of individuals less than 65 years who died had diabetes. And one-third of adults over 65 years had diabetes.

We still have much to learn about the relationship of COVID-19 illness and diabetes. Some questions that remain are, does risk for severe illness differ for type I or type II diabetes? Is the risk for severe illness associated with high glucose levels or specific diabetes medications? End stage renal disease and chronic kidney disease are also risk factors for severe COVID-19 illness and common among individuals with diabetes. Does this increase an individual's risk for severe complications? In general, do common comorbidities associated with diabetes such as heart disease, hypertension for example -- do these comorbidities increase risk for severe illness among individuals with diabetes? To address COVID-19 illness and severe complications from COVID-19 among people with diabetes, CDC is conducting studies to look at risk factors for severe illness including diabetes. We're partnering with organizations funded in the Location, Environmental Attributes and Disparities or LEAD study to explore risk factors for SARS-CoV-2 in association with diabetes and social determinants of health. Next slide, please.

While we do not know if having diabetes itself increases one's risk for SARs-CoV-2 infection, CDC is continuing to study this. What we do know in the study published June 26th in MMWR, from the a study, research examines data for 220 hospitalized and 311 non-hospitalized COVID-19 patients from six metropolitan Atlanta hospitals and associated outpatient clinics. They found that older age, black race, diabetes, lack of insurance, male sex, smoking and obesity were independently associated with hospitalization. Of the COVID-19 patients surveyed as part of this study, black patients were more likely to be hospitalized than white patients. 79% of those who were hospitalized were black compared to 13% white patients, as were 45% of those who were not hospitalized compared to 29% of white patients.

Obesity, smoking, hypertension, diabetes mellitus and chronic kidney disease were more prevalent among hospitalized patients than among non-hospitalized patients. Patients hospitalized for COVID-19 were more likely to have diabetes and obesity than non-hospitalized patients, suggesting a relationship between these underlying conditions and increased severity of illness. The COVID-19 pandemic has highlighted persistent health disparities in the United States. Racial and ethnic minority groups are at higher risk for severe complications from COVID-19 due to increased prevalence of diabetes, cardiovascular disease and underlying conditions in the population. Social determinants of health including factors related to housing, economic stability and work circumstances may also contribute to the disproportionate impact of COVID-19 on racial and ethnic minorities.

The ongoing COVID-19 pandemic has only underscored the importance of diabetes management since we know that people with diabetes are more likely than others to become severely ill if infected. Higher prevalence of disease and greater likelihood of severe outcome suggests we need to support people with diabetes by helping them effectively manage their condition and minimize exposure to the virus. Research suggests that there were significant reductions in emergency department visits for heart attack or myocardial infarction, stroke or dangerously high blood pressure. These reductions may be explained by many factors including fear of exposure to COVID-19. Federal recommendations to minimize non-urgent healthcare and recommendations to stay at home for other reasons -- so this would be an example of unintended consequences where we were trying to minimize exposure to COVID-19.

We then found ourselves in a place where other conditions were being exacerbated or increased because of that guidance. A lack of blood glucose management and other self-management routines, even over a short time, can have lasting negative consequences for people with diabetes. Specifically, blood glucose that gets too high can lead to diabetic ketoacidosis, a serious condition that can lead to coma or death. Over time, ineffective blood glucose management can lead to long-term serious health problems including blindness, amputations, kidney failure and others. People experiencing serious signs or symptoms such as high blood pressure, high blood sugar or other life-threatening issues should see immediate emergency care.

And I know I've seen a number of campaigns that were trying to address this gap that we were seeing and encouraging people with signs of stroke or heart attack to make sure that they continue to access care in emergency departments. Clear communication from public health and clinical entities are needed to reinforce the importance of timely care and to assure the public that ED's are implementing infection prevention and control measures to support the safety of patients and healthcare personnel. The clinical community has a clear role to play to minimize severe health outcomes for this large population. So what can you do? Continue educating your patients about the virus and how they can reduce their risk of getting sick with COVID-19 by washing hands often, staying at least six feet from other people, using a cloth face cover when around others, and monitoring their health for symptoms. Refer your patients with diabetes to diabetes self-management education and support services, and educate healthcare teams and people with diabetes about the benefits of DSMES.

DSMES is an ongoing process that supports people with diabetes in building the knowledge, skills and ability important for good diabetes self-care. It helps to empower individuals to have more knowledge and feel more equipped to handle what they're dealing with. Diabetes care and education specialists can provide these much-needed services to help your patients with diabetes develop and practice the behaviors necessary for managing blood glucose, blood pressure, lipids and all aspects of diabetes to stay healthy. Screen people at high risk for type II diabetes using a simple screener developed by CDC and American Diabetes Association. And follow up with a blood test when warranted to test for abnormal glucose.

This is an important step in identifying both undiagnosed diabetes and prediabetes as these are effective interventions for both. So as we learn more about COVID-19 and the relationship with diabetes as well as many other disease conditions, we thank you for your continued commitment to staying on top of the most recent knowledge and guidelines. We're very grateful to have these COCA calls to be able to interact with our frontline clinicians. And as always, we welcome your feedback on these topics or other guidelines that would be useful. So thank you for your time.

I will now turn it over to Dr. Albright.

Thanks, Dr. Philip. I'm so happy to be with all of you today. We really appreciate you joining us. Next slide, please.

I'd like to emphasize some key points to begin my remarks, and then dig deeper into these as we talk through particularly some of the tools and resources available to you. As we begin to really look at people with diabetes and what can be done for them certainly during the COVID pandemic, when you look at people with diabetes, day to day management can be challenging even under the best of times. And when you add in stress and disrupted routines that come with a crisis, and self-care is even more daunting. So effective blood glucose management is extremely important. And this is especially true during a crisis.

Yet emergency or crisis can make it even more difficult for people with diabetes to manage their blood glucose. So we've got challenges under the best of times difficult, and under the worst of times even more difficult. And yet it is absolutely critical, as services for both type II diabetes prevention and diabetes self-management can support people in practicing healthy lifestyles during difficult times. And this can help people at risk avoid or delay type II diabetes, and for people who have diabetes, it can help prevent short-term and lasting consequences that can result from high blood glucose. As we take a look a little bit more deeply at diabetes self-management education and support, as Dr.

Philip mentioned earlier, DSMES is the acronym we use. I'll mention a bit later on the other acronym that's used by Medicare, is DSMT. So you'll hear both of those acronyms used. So as we look at DSMES and the importance of it for people with diabetes, if people need to stay at home for an extended time because of a crisis, the status of their job, health insurance and finances may change in ways that can negatively affect their diabetes self-care. Including their ability to exercise, their access to fresh, healthy food, their having enough diabetes medication and supplies, and their ability to see their doctor.

Their added stress and anxiety. And diabetes self-management education and support helps patients with their diabetes management. It really is the key piece of caring for yourself when you have diabetes, and not only your medications and devices and regular tests and exams, but DSMES is really a lynchpin to good diabetes care. There are four critical times to provide and modify DSMES. One of them, the first one is at diabetes diagnosis which seems, I know, self-evident.

During that particular meeting, various topics are covered with a newly diagnosed patient. But it's especially important to ensure that both nutrition and emotional health are addressed during this initial diagnostic visit for DSMES. The second critical time is annually or when not meeting treatment targets. When knowledge and skills need to be assessed or there's a person with longstanding diabetes but they've had limited prior education. And this is often true for people who have had longstanding diabetes.

It's also important when treatment is ineffective, and also when there's a change in medication or activity or nutrition intake or someone's nutrition preferences. And it can also help with maintenance of positive clinical or quality of life outcomes. And it's also important during unexplained or frequent hypo- or hyperglycemia. This is again a critical time to be sure that people are getting assistance during this time with DSMES. And then also when psychosocial or behavioral supports are needed which can occur fairly frequently in diabetes.

Diabetes -- a lot of people who have diabetes face depression and other sorts of challenges because of the burden it is to live with this chronic condition that certainly takes effort to manage. The certain time that it's recommended to get DSMES is when complicating factors develop. And there's a change in health conditions or health status requiring changes in nutrition, physical activity or a medication. When there are physical limitations or when there are changes in emotional wellbeing or basic living needs can change. Also when planning a pregnancy or when you are pregnant.

And then the fourth time is when there are transitions in life and care that occur. So this could be a change in your living situation or discharge from inpatient to outpatient. Or when a person is going to be moving to a new clinical care team. Also when there's initiation or intensification of Medication or devices or technology, somebody may be going on an insulin pump or a continuous glucose monitor, or quite frankly just learning how to use their blood glucose monitor. When insurance coverage changes or when there are age-related changes.

CDC is really focused on advancing the use of DSMES because it is an effective service that is proven to help people manage their diabetes. It is proven to prevent additional short- or long-term complications and reduce the number of visits to the emergency room or a hospital. Studies have confirmed the cost-effectiveness of participating in DSMES services through reduced hospital admission and readmissions. But, despite this evidence, use of DSMES services is low. So there is much more we can do to increase uptake.

Discuss with all people with diabetes the benefits and value of initial and ongoing DSMES. It's one of these things, the more it's in front of people, the more we talk about it, the more aware people will become. Initiate referrals to and participation in DSMES at those four critical times that I just mentioned. Also, identify and address barriers that are affecting participation with DSMES services following the referral. And this can certainly be a number of things.

Oftentimes with a bit of talking through and some additional work with the patient, those barriers can be overcome. When in-person visits are not possible, a diabetes care and education specialist can stay connected with patients through telehealth, text, video chat. And telehealth visits can really help bridge the gap for patients when they are not able to see you in the office. They can also provide that flexibility in scheduling and additional touchpoints for patients during critical times. And that is a key piece of this.

When people are living with a disease like diabetes, it does require their involvement. They are the center of the treatment plan, that having that support, that reassurance, particularly during something like COVID-19, this pandemic, is really vital. Many DSMES program delivery organizations, they offer flexible service times and locations. Of course, locations are more of an issue when we're through the pandemic, but certainly time, meaning evening and weekends. They tailor the session content and materials for cultural preferences, socioeconomic context and literacy level of participants among other things.

They communicate with the healthcare providers about concerns with insurance issues or cost to the person with diabetes, and these are again oftentimes one of the barriers that people with diabetes may be facing. Also, these organizations include technology-based services, including web-based programs, telehealth, mobile applications and remote monitoring. It is amazing the number of services and technologies that are becoming more available. Still, those who are not yet accessing or are able to access those, but their availability is increasing. Medicare part B does cover diabetes both initial and subsequent follow-up, outpatient, again diabetes self-management training.

This is where DSMT is used. So they do cover that initial and subsequent year follow-up. And while the Centers for Medicare and Medicaid Services does include DSMT as a covered benefit, Medicare beneficiaries are only eligible if they have a properly executed written e-referral from the provider directly responsible for their treatment of their diabetes. And this can be a physician or another qualified non-physician practitioner. Medicare does cover telehealth delivery of DSMES.

And fortunately, CMS has introduced flexibilities to make it easier to offer DSMES services remotely during this public health emergency. The Association of Diabetes Care and Education Specialists, this organization was formerly known as AADE or the American Association of Diabetes Educators. They are now the Association of Diabetes Care and Education Specialists. If you look at their website, it provides more information on this, on the Medicare service for DSMT. I'd now like to turn our discussion over to type II diabetes prevention through the National Diabetes Prevention Program for people at risk.

According to the national statistics, one-third of adults over age 18 have pre-diabetes or at high risk for developing type II diabetes. And more than 8 in 10 of these individuals do not know they're at risk. Given the impact of diabetes on the nation and the potential for severe illness that people with diabetes face if they contract COVID-19, it is critically important to prevent type II diabetes. The National Diabetes Prevention Program, we refer to it as the National DPP, is actually a partnership of public and private organizations that are working together to build a nationwide delivery system for Lifestyle Change programs that's been proven to prevent or delay the onset of type II diabetes in adults with prediabetes. I mean, think about it.

We have a medication distribution system in our nation, but we have not had a lifestyle distribution system in the country. And certainly what we're doing in diabetes for the National DPP will benefit many other chronic conditions and issues because of the building of this system, this distribution system for our country. The National DPP Lifestyle Change program is based on research that -- it's a scientifically proven program that's focused on healthy eating, physical activity and coping strategies, stress reducing strategy. And the program is based on research that showed that people with pre-diabetes who take part in a structured Lifestyle Change program can cut their risk of developing type II diabetes by 58%. But if you're over 60, it can be cut by 71%.

The National DPP's Lifestyle Change program is offered in-person, online or what we refer to as distance learning. This is where the coach is in another location from participants and they are seen on a video. Again, sometimes distance learning and telehealth may be used interchangeably. Offering the National DPP Lifestyle Change program online through distance learning may increase access to the program, particularly during COVID-19 pandemic. We've been working with partners throughout the pandemic and it's really been very heartening and wonderful to see so many of these organizations pivoting, if they were an in-person only program, to virtual delivery.

And the virtual delivery in the community has been helping many of these organizations with how to coach virtually and how to assist them. And some of them are letting them use their platform free of charge. A 2017 study did find that participants who received the National DPP Lifestyle Change program through telehealth or distance learning had similar outcomes from those who participated in an in-person program. So they had similar weight loss as those who attended an in-person program. Part of the National DPP is a quality assurance program that we at CDC run, and we provide CDC recognition at various levels.

And in order to achieve full CDC recognition, all organizations need to meet participation and weight loss requirements regardless of the delivery mode. These standards allow us to be innovative and have a variety of ways in which the program is delivered as long as these organizations can meet these national standards. And it has been very helpful in reaching people where they are in locations where they are and what their circumstances are. And the National DPP Lifestyle Change program is covered by many employers and commercial and public insurers, including Medicare. We realize and acknowledge coverage at this point in time is not perfect.

But there is a significant amount of coverage and we and our partners continue to work very hard to expand that coverage. In addition, 11 states have made the decision to include the National DPP Lifestyle Change program as a covered benefit for eligible Medicaid beneficiaries. And these states are in various stages of implementation. Let's move to the next slide. I'd like to now have us focus and talk a bit now about key ways in which -- actions that you can take to help in this way, and to help in diabetes self-management and in the National DPP.

The first is really to maintain staff that can provide type II diabetes prevention support and critical diabetes management and education services. And I know that that can be very challenging when people are being called into other efforts in the pandemic. There are staff that may certainly be able to provide this service, though, and based on all that we have discussed today, I hope it's clear how critical helping patients who have diabetes maintain or achieve good control in order to fare better during the pandemic. And when at all possible, to offer these prevention services so people never develop this very challenging disease, and usually end up in a situation where they fare more poorly under emergency circumstances. Also, refer people with diabetes to DSMES services.

As I mentioned earlier, it is required by CMS. They must have that referral. And we would recommend again particularly referral to those programs recognized by the American Diabetes Association or credited by the Association of Diabetes Care and Education Specialists. And educate your healthcare teams and people with diabetes about the benefits of CDC's Diabetes Self-Management Education and Support. We'd like to offer one very important resource, and that's CDC's DSMES toolkit which includes information about the National Standards for DSMES.

Those four critical time points that I mentioned earlier, these standards lay out those time points. They go into much more detail and provide guidance and assistance so you can get much more information by looking at those national standards. The evidence supporting DSMES, we've got information in there about that. The accreditation and recognition process so people know how to go through that process and achieve and maintain recognition. Reimbursement and other helpful topics are also included in this toolkit.

Also, improved awareness among teams and systems, healthcare teams and systems about where DSME services are available, including community health centers, pharmacies, faith-based organizations, so that there's an increased participation in DSMES programs. One can certainly imagine the closer these services are, the easier they are to get to, the more likely people are to engage in them. The more they hear from those in their lives, and very importantly their healthcare professionals, the more likely they are to consider participating in these programs. Encourage your patients to participate in DSMES at those four critical time points. And then also increase screening as Dr.

Philip had mentioned earlier. Increase screening for pre-diabetes and referral to the CDC recognized organizations offering the National DPP Lifestyle Change program. Research does show that people at risk for type II diabetes may be more likely to consider enrolling in that program if their healthcare professional recommends it. You all are so really important for so many reasons. And referring these programs, speaking up about them is really very important for patients' participation.

Many organizations do offer online or distance learning options for the National DPP Lifestyle Change program. Certainly critical during COVID. And I shared earlier about some in-person programs have transitioned. We've also been working with organizations who when the pandemic subsides, they probably -- they plan to continue offering not only in-person but also an online or virtual program as well. So this situation we're in has been causing some adjustments and some additions and new operating procedures for many of these organizations.

CDC and the American Medical Association have resources for clinicians that provide information about the National DPP Lifestyle Change program, the eligibility criteria for participation and tools for easy referral. I really encourage you to take a look at that AMA website, those resources. They are very helpful and I think will provide some very important information for you. I'd like to move to the next slide. Please do, as we said, provide a referral to your patients.

And you can -- providers can refer their patients to our website to find online classes and in-person classes. Certainly in-person now is not an option certainly under the pandemic. As it subsides it may become more of an opportunity for people to resume in-person programming. This site will have all of that information. This particular map and the ability to get online on our site and look for those programs provides a good deal of information.

We are currently launching what we are referring to as the National DPP Operations Center. And it is going to be allowing us to look at all kinds of data to help people connect with services and their community, be able to know where various employers who may offer the program are located, a number of things. And we are currently working toward enhancing this locator function on the National DPP website. But as it stands right now, you will be able to find and your patients will be able to find programs, again, online or distance learning or in-person. And let's move to the next slide.

Here are a number of additional resources that I would encourage you to take a look at. And we hope that you will find them to be helpful. If you do have any questions certainly about the National Diabetes Prevention Program, we have a customer service center. And we will provide that information. It is National DPP CSC -- that stands for customer service center -- NationalDPPCSC@cdc.

gov. So if you want more information than what's available here, we're happy to help. You can access not only written materials on the customer service center, but you can also get access to live people to provide help and information. And also we have external resources, people who work on reimbursements, referrals, all those kinds of things who can also be very helpful. And certainly, again, any questions that you have about diabetes self-management education support, you'll be able to find additional information on our website.

I also would like to be sure to draw attention for pharmacists who can participate by using a tool that we have called the prescription for the National Diabetes Prevention Program, Action Guide for Community Pharmacists. I'd encourage pharmacists to be sure to take a look at that action guide. We have done testing with that guide with a whole array of types of pharmacists and have gotten very good feedback and have good results for that tool. So at this point I'd like to turn the conversation now back over to Commander Khan. Thank you.

Presenters, thank you for providing our audience with such useful information. We will now go into our Q and A session. Please remember you may submit questions through the webinar system by clicking the Q and A button at the bottom of your screen, and then typing your question.

Our first question asks, do people with type I diabetes have the same level of risks related to COVID-19 as people with type II diabetes?

Hello, this is Commander Saydah and I will answer that question. Because COVID-19 is a new disease, we really have very limited data on the impact of specific underlying medical conditions and whether or not they'll increase the risk for infection and for severe illness from COVID-19. What we do know at this time is that people of any age with certain underlying conditions are at an increased risk for severe illness from COVID-19, including people with type II diabetes. We don't know if people with type I diabetes or gestational diabetes may also be at increased risk for severe illness. It's important to remember that people with either type of diabetes can vary in their age and their complications and in how well they are managing their diabetes.

People who already have diabetes-related health problems are likely to have worse outcomes if they contract SARS-CoV-2 than people with diabetes who are otherwise healthy, whatever type of diabetes they may have. Thank you.

Thank you very much. **Our next question asks, can you talk about what CDC's doing to address these health disparities that exist among people with diabetes that contract COVID-19 or are at a higher risk for COVID-19?**

Thank you. This is Commander Saydah again and I will take the first part of that question and then ask Dr. Albright to also add in some. We know that longstanding systematic health and social inequalities have put many members of racial and ethnic minority groups in our communities at an increased risk for getting SARS-CoV-2 or experiencing severe illness. Among some racial and ethnic minority groups including non-Hispanic black persons, Hispanic, Latinos, American Indians or Native Alaskans, the evidence points to a higher rate of hospitalization or death from COVID-19 illness than compared to non-Hispanic white persons.

We also know that diabetes disproportionately affects many of these racial and ethnic minority populations, especially non-Hispanic black or African American population, Hispanic or Latino Americans, American Indians, Native Alaskans, Native Hawaiians and Pacific Islanders. CDC recognizes that these conditions -- that the conditions in which people live, work and play contribute significantly to their health. CDC has developed a number of resources to help local communities, schools and faith-based organizations and other groups and the people they serve during this pandemic. In addition, we're actively working with state, tribal, local and territorial health departments and healthcare systems to collect information on a number of COVID-19 cases, hospitalizations, deaths and to really understand which groups might be at more risk. This information can then be used to better direct resources and care and really help address these health disparities.

We're also supporting partnership between researchers, professional groups, community groups, tribal medicine leaders, community members to share information on how to prevent COVID-19 illness in racial and ethnic minority communities. And in providing considerations on how to prevent and slow the spread of COVID-19 in schools, workplaces, communities, including the organizations that specifically serve more racial and ethnic minority groups. Dr. Albright, I'll let you add in anything you'd like.

Thanks, Commander Saydah. In addition, CDC's Division of Diabetes Translation has made addressing diabetes health disparities a priority. We created a practice-based guide that's called Implementing and Evaluating Diabetes Self-Management Education and Support Programs for Underserved Populations and Communities, which can be used alongside the DSMES toolkit that I mentioned earlier. This practice-based guide was created to share lessons learned from the evaluation we've done on this tool, and expert insights with DSMES programs that specifically work to better reach the underserved populations and communities. It is based on real programs and utilizes the knowledge from diabetes and health disparity experts who can interpret evaluations and findings through a lens of the context and culture.

DDP also funds ten national organizations to further build out the National Diabetes Prevention Program infrastructure in underserved areas of the country. And to reach priority populations that are currently under-enrolled in the program relative to their risk. Thanks.

Thank you for that. **Our next question asks, one of the speakers mentioned that CMS has made efforts to make DSMT more available using telehealth. Can you talk about the role that nurses and pharmacists can furnish for DSMT via telehealth as well?**

Yes, this is Dr. Albright, happy to answer that one. CMS issued an emergency blanket waiver including flexibilities for telehealth services by healthcare providers which was effective March 1st of 2020 and last through the duration of the COVID-19 public health epidemic. DSMT providers including nurses and pharmacists can provide those DSMT services to Medicare beneficiaries when the beneficiary is in their home or other location. And in addition, one-on-one telehealth services provide by any healthcare practitioner working for a rural health center or a federally qualified health center can bill for telehealth.

Thank you very much. **We have another question on telemedicine that asks that even though there is more use of telehealth and it's being talked about a lot, some ambulatory providers might lack the knowledge and skills needed to implement any video-based telemedicine into their practices. Does CDC have any recommendation or know of any opportunities for education for such providers, please?**

Yes. Hi, this is Dr. Albright again. If you're not familiar with telehealth, it can be tough to know where to start with telemedicine. Good news, the US Department of Health and Human Services assistant secretary for preparedness and response are partnering with the Echo Institute at the University of New Mexico and the Public Health Foundation's Train Learning Network to deliver a 10-week virtual peer-to-peer learning community called Telemedicine Hack.

This lunchtime webinar series began last week, but you can attend tomorrow and every Wednesday through September 23rd from 12:00 to 1:00 Eastern time. And there's no cost to join and all ambulatory providers -- so for example, primary care, surgical, rural, urban, dental, mental health, solo practitioner and certainly many others are invited to participate. And we can share the link to register in the chat box.

Thank you very much, Dr. Albright. Appreciate the resource. And at this point I'd also like to put in a plug for our next COCA call which is in fact on telehealth and it's titled COVID-19 and Telehealth Implementation: Stories from the Field. This COCA call will take place on Tuesday, August 4th at 2:00 PM. So in addition to the resources that Dr. Albright shared, that COCA call will allow you to hear about experiences from the field related to telehealth.

Moving on to our next question, our next question asks, given what we know so far about the risks of COVID-19 for people with diabetes, what are some of the knowledge gaps that CDC is making an attempt to address?

Thank you. That's a very important question. This is Commander Saydah. The CDC is actively conducting disease surveillance and field investigations so we can really better understand why some people are more likely to develop severe COVID-19 illness. What we can learn from these efforts will hopefully provide vital information to help CDC scientists and other public health officials make decisions.

It will help protect our most vulnerable populations. Knowing more about the risk factors for severe COVID-19 illness can help healthcare providers advise precautions for patients as they go about their daily lives and attend events. It will help them hopefully better understand how medical conditions could affect patients' health if they get sick with COVID-19. And it will help educate patients on ways to

reduce their risk for severe COVID-19 illness, including during DSMES. It's important to remember CDC cannot conduct this surveillance and research alone.

These activities are carried out in collaboration with all of our partners, with state, local territorial health departments, public health commercial and clinical laboratories, vital statistic offices, healthcare providers, emergency departments and academic and private partners. And since this is an important question, I was going to ask if Dr. Albright would like to add anything to this.

Thanks. Yeah, I was just going to add that CDC is also partnering with organizations that we fund. You heard Dr. Philip mention earlier the study called Location Environmental Attributes and Disparities -- we refer to it as the LEAD study. And this study is being conducted to explore risk factors for SARS-CoV-2.

We had already started this study, but when the pandemic came upon us we have now been able to have these investigators, some of these investigators explore risk factors for SARS-CoV-2 and association with diabetes and social determinants of health. So the LEAD study is an ongoing project that's been used to examine community characteristics associated with the geographic disparities and cardiometabolic health. And so some of the questions that we're learning more about specifically related to COVID -- as I said, we've got other questions that we're looking at in the LEAD study. But specific to COVID, we're looking at, does risk for severe illness differ for type I and type II diabetes? That's a question we get a lot. Is risk of severe illness associated with high glucose levels or specific diabetes medications.

End-stage renal disease and chronic kidney disease are also risk factors for severe COVID-19 illness and common among individuals with diabetes. So does this increase an individual's risk of severe complications? In general, we're seeking to understand, do common comorbidities associated with diabetes -- whether it's heart disease, hypertension, increased risk of severe illness and among individuals with diabetes. So some again important questions. Someone may think we should be able to make some reasonable connections to, but we really need to have solid evidence to be able to know how best to move forward. And getting these kinds of questions answered in this study is going to make very important contributions to our knowledge.

Thank you very much. Our next question asks, what advice would you give to providers who want to counsel their patients with diabetes that may choose to attend events?

Thank you for that question. This is Commander Saydah again. If your patient or people that your patient is visiting or lives with have symptoms of COVID-19, or if they've been exposed to someone with SARS-CoV-2 in the last 14 days, they should delay or cancel their visit. Anyone who has had close contact with a person who has COVID-19 illness should stay home and monitor for symptoms. However, if your patient with diabetes does decide to engage in public activities, they should continue to practice every day preventative actions, including wearing a cloth face covering, keeping distance from others and washing hands.

It is important to keep a cloth face covering on when venturing out, also having hand sanitizer with at least 60% alcohol on hand is also useful. If possible, a person with diabetes should avoid others who aren't wearing cloth face coverings, sorry, or ask those around them to do so. People with diabetes should not delay in getting any emergency care for hyperglycemic events or other diabetes-related symptoms or conditions because of COVID-19. You heard a lot of that earlier in this presentation.

Emergency departments have contingency infection prevention plans to help protect you from getting COVID-19 if care is needed.

And we really strongly encourage patients to continue or to engage in DSMES to help avoid preventable trips to the emergency department. Fear and anxiety around the disease can really be overwhelming, especially for those who might be at higher risk or those who are experiencing social isolation, as many of us are. And for healthcare providers that are treating patients at higher risk. DSMES can be critical for patients with diabetes during this time. Thank you.

Thank you very much. Our next question asks, do you have any recommendations for work restrictions for providers that have diabetes?

It's also a very important question. This is Commander Saydah again. There's really insufficient information on COVID-19 to determine if the level of risk for diabetes specifically in terms of infection, although we are learning more about that every day. CDC's continuing to analyze the data that we have, and we'll provide updates with new information when it's available. It's important to know your own overall health and your patients' overall health, how well their conditions are managed.

And use your clinical judgement to really evaluate on a case-by-case basis. Adherence to recommended infection prevention and control practices is an important part of protecting healthcare providers and patients in all healthcare settings. And healthcare providers who care for confirmed or suspected COVID-19 patients should adhere to the standard transmission-based precautions. To the extent feasible, healthcare facilities should consider prioritizing healthcare professionals who are not at higher risk of developing severe illness from COVID-19 or who are not pregnant to care for confirmed or suspected COVID-19 patients. It's possible that staffing shortages will make this challenging and facilities should consider restricting healthcare professionals at higher risk for severe illness from COVID-19 or those who are pregnant from being present for higher risk procedures such as aerosol generating procedures on COVID-19 patients.

Healthcare professionals who are concerned about their individual risk for severe illness from COVID-19 due to underlying medical conditions while caring for COVID-19 patients can discuss their concerns with their supervisors or occupational health services.

Thank you very much. Our next question asks that at-risk patients are generally advised to stay home and healthcare facilities and providers might be prioritizing COVID-19 patients. So how do you recommend patients that may have knowingly pre-diabetes assess their risk prior to getting their blood sugar testes?

And this is Dr. Albright again. You can have pre-diabetes for years but have no clear symptoms, so it often does go undetected. That's what we said earlier. The rate of those who know their risk is really, really very low.

Eight out of ten don't know they have pre-diabetes. So it goes undetected until serious health problems such as type II diabetes show up. That's why the prevention program is so very critical. But in partnership with the American Diabetes Association and the American Medical Association and the AD Council, CDC launched an awareness effort across the nation about pre-diabetes. It's actually the first effort around pre-diabetes to have been done in our nation.

You may have seen some of the engaging ads with puppies or witticisms about being stuck in traffic or jogging with cats. They are definitely worth looking at and sharing. You can go to DoIHavePrediabetes.org and take a look at those, and please do share them. Since that launch in 2016, people can take a one-minute test at the website I mentioned, DoIHavePrediabetes.org, to find out their risk and then confirm their results with their doctor if their score is high. And that would then be again the blood test. But that first taking that risk test is really that first step. This simple test uses an algorithm to tally a score that's based on common risk factors like being overweight, being 45 years or older, having a parent or brother or sister with type II diabetes. Being physically active less than three times a week.

Ever having gestational diabetes or giving birth to a baby who weighed more than nine pounds. Having polycystic ovarian syndrome, excuse me, polycystic ovary syndrome. And race and ethnicities are also a factor, and we've discussed it throughout this time today. African American, Hispanic, Latino, American Indian, Pacific Islanders and some Asian Americans are at higher risk. And the results can be saved or printed so that the patient can discuss the score and next steps with their provider.

The site also does enable people with pre-diabetes to find and enroll in the National Diabetes Prevention Program Lifestyle Change program. And so we again encourage that risk test, written risk test first steps, and that really puts people in a good place to decide next steps.

Thank you very much. **Next question asks, whom should healthcare providers notify if they suspect a patient has COVID-19?**

Yes, this is Commander Saydah. Healthcare providers should immediately notify the infection control personnel at their facility if they suspect COVID-19 in a patient. If the patient tests positive, providers should report that positive test result to their local or state health department.

Thank you very much. We have time for just one last question. **And our question asks, CDC's published guidance outlines several options for collecting specimens. And can you please talk about if the oral specimen is as effective type of specimen as the nasal swab?**

So this is Commander Saydah. Proper collection of specimens is really one of the most important steps in the laboratory diagnosis of any infectious disease, including SARS-CoV-2. A specimen that is not collected correctly might lead to a false negative test result. And any respiratory samples outlined in the interim guidance are appropriate. And we can provide the source on CDC's website for those guidelines.

Thank you very much. And all these resources that we discussed today will be available on the COCA call's webpage when we archive the video of the call. So first I want to thank all our presenters for joining us today with a special thank you to our speakers. Today's COCA call will be available on-demand a few hours after the live call.

You can find the video recording of today's call at emergency.cdc.gov/coca. Please join us for our next COCA call, COVID-19 and Telehealth Implementation: Stories from the Field. This COCA call will be held Tuesday, August 4 at 2:00 PM eastern time. Please continue to visit emergency.cdc.gov/coca over the next several days to get more details about this call and others as we intend to host COCA calls to keep you informed on the latest guidance and updates from COVID-19.

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Have a great day.