Transcript

Heart Healthy Women: Supporting Women's Unique Cardiovascular Health Needs

Wednesday, May 12, 2021, 3:00 – 4:00 PM EDT

>> STEPHEN HAYES: In a minute we will all be live.

Good to go. I'll start the recording.

Hello and welcome. My name is Stephen Hayes, and I'm with the Health Resources and Services Administration Women Health. Welcome to this edition of leadership series highlighting key women's health issues and promising practices from the field. Today's webinar is an observation of this year's national women's health week and is co-sponsored by the HRSA office of regional operations, region 9. Thanks to Dr. (?) of HRSA's ORO region name, Dr. Kara Beck and Victoria Tims for their work making this webinar possible.

>> We encourage you to stay tuned for future webinars. Now welcome Nancy Smith.

>> NANCY: Good afternoon. I'm Nancy Mautone Smith, Office of Women's Health and I'm pleased to welcome you to today's event. Heart healthy women supporting women's unique cardiovascular needs. May 9th through 15th is national women's health week, an annual week long health observance led by the HHS office on women's health. National health weekend courages and reminds women to make their health a priority and take care of themselves and this is the third installment of HRSA's women's health leadership series. And today's speakers will share research based insights into women's unique cardiovascular health needs, federal data and resources on women's heart health and strategies successfully being used to improve women's cardiovascular health in community health centers.

I would also like to recognize the ODW staff that coordinated this webinar including Dr. Kara Beck, Stephen Hayes and Victoria Tims. I would like to thank from the HRSA office of for collaborating with us to co-sponsor this important event. Now I will turn things over to Stephen Hayes to get us started. Take it away.

>> STEPHEN HAYES: We are excited to have expert voices today as we focus on a critical health issue for women, heart health. Today Dr. at the university of Arizona college of medicine and Dr. Janet Wright, acting director of CDC's division for heart disease and stroke prevention will share their expertise and help provide an update on the state of the science and clinical practice before we shift to three presentations on innovative approaches from community health centers from across the country. Those three are Esperanza health centers, Carrie kindle burger will be presenting. Lorain County Health and Dentistry, Judy Cilona from Alario, Ohio. We ask that everyone please hold your questions until the end or put them in the chat where we will be tracking them so we can ensure all speakers with share completely.

As Nancy mentioned, National Women's Health Week is the week long health observance led by the this webinar is a part of this year. We encourage you to visit womenshealth.gov/NWHW to see how you can disseminate materials about this year's women's health week and upcoming paragraph finally, OWH is focusing today and will be the experts to provide the overview of the data but on heart disease in women because it is the leading cause of death for women in the U.S. and only about half of women recognize it as such according to available data. Key risk factors are common and prevention is key. And

with that I will turn it over Dr. Gulati for today's presentation. Let me transfer so you can share your slides. Just a moment.

>> MARTHA GULATI: Can you see my slides?

>> STEPHEN HAYES: Perfectly. Thank you.

>> MARTHA GULATI: Sorry for that quick transition. I am going to give you the background because that's the part that, you know, I'm obviously a cardiologist, I just take care of women and the points that were already made are excellent because we do know that there is a lack of awareness, not just by patients, but also by our medical community. So I have no disclosures but of the 1.3 million deaths of U.S. women, over 420,000 of them are due to cardiovascular disease, making it the leading killer in the United States.

The second leading cause is chronic lung disease. Third leading cause is lung cancer. And the fourth leading cause is breast cancer, despite the fact that that's what women really understand is the risk to their health. Tenfold greater risk of dying from cardiovascular disease than breast cancer.

Another way to put it is in terms of prevalence and it's basically one in two women are living with some sort of cardiovascular disease when we include hypertension in that definition. The prevalence of breast cancer in the United States is about 3.8 million women. It's not to belittle breast cancer. Of course as an important health issue. But women and doctors know to screen for this. They do not know to screen for something that is more likely to hurt them or kill them.

So, I love this quote, because I heard it in medical school and I'm a long way now from medical school. But Dr. Nanette Wanier who I consider the mother of women and heart disease, she said this when I was a medical student that the medical community has taken a bikini approach to women's health, essentially looking at the breasts and the reproductive system and almost ignoring the rest of a woman when we talk about women's health. Well, she said that many years ago and a few years ago I wrote an editorial saying, okay, so when do we move beyond the bikini to start protecting a woman's heart. Because there's just so much gaps in our care. And I'm going to try to go through very quickly because I was not given a lot of time and you can probably tell I would love to talk about this for the entire hour, but that would just be mean.

But, you know, part of the problem is we just didn't even include women in trials. And so I love this cartoon we have studies of fruit flies, mice, ham sisters, frogs, monkey and men with this condition, but medical research using women as subjects never occurred to anyone and that is so true in particular and particularly in cardiology and you can just see here at a quick glance they adjust for the prevalence of the diseases, the different forms of cardiovascular disease in this paper that came out last year. And it didn't matter what type of disease except for pulmonary hypertension is the only study that studies that we have enrolled enough women or more women than men. Doesn't matter if it's a drug, device, doesn't matter if it's a lifestyle intervention or a procedure. We don't enroll enough women. Doesn't matter where in the world it's done. We don't enroll enough women. Doesn't matter by the age. Although, under the age of 55 we do

(Audio difficulty.)

>> MARTHA GULATI: But again, remember cardiovascular disease tends to affect women more at other ages. So may not really be shedding the exact light we want. And sponsor type, if it's government funded actually surprising and again this is a worldwide capture, when it was government funded, though, we enrolled less women but actually all studies were poorly representative for women and again this is a global snapshot.

Well, why does it matter? I'm sure most of you understand the difference between sex and gender but let me put it out there. Sex is determined by being XX or XY. So if you're a woman, you're biologically at least a woman by XX. And why that's important is because there is ways that we are going to respond to risk factors and developing disease that's going to be different than men. The point is, is that every cell has a sex and the genes that our molecules determine how we respond to things, it's determined by our sex. Not to underestimate the influence of gender, how we are seen by society since it's a social construct also affects our health. Maybe our lifestyle or access to care or our employment, all of that matters. And sometimes it's hard to tease one from the other. But it's important that when we want to understand if there's a biological difference on how a woman will metabolize a drug compared to a man, we have to study them. We have to understand what the differences are.

Now, I'll just quickly tell you that we don't even do a very good job of taking care of women once they have cardiovascular disease. If I asked you do we follow the guidelines equally in women compared to men, we don't. Here's just a great example of get with the guideline data also known as the NCDR database where that's voluntary in the United States, the best hospitals tend to give their information to make it public. But if you look and pay attention to the middle column there, the adjusted odds ratio if a woman is more likely to get something, it will be a number greater than one. If a woman is less likely to get something, it will be less than one. And if it's equally likely, it will be 1. Well, this is get with the guidelines for how after a myocardial infarction, after a heart attack. So women compared to men are less likely to get bait blocker within 24 hours, lifesaving therapy. Women are less likely to undergo any type of invasive procedure. Women are less likely to meet our standards of care like door to needle time and door to balloon time that we have measures like let's open that artery up and get the blood flowing and we don't meet them in the same that we meet them for men.

The only thing women are better at doing than men is dying. And particularly the highest risk group, the ST elevation myocardial infarction group and that's a bit older data but we keep looking at this data and we still see the same thing. You know, worse to be a woman, worse to be a black woman specifically and women have more bleeding based on the most recent analysis.

So, the other thing is that women are more likely to be rehospitalized after a heart attack, possibly because we treat them differently and because we don't refer them to cardiac rehabilitation at the same rates as we do for men. We don't always provide adequate follow up. There's a lot of reasons. But especially the younger women, those people under the age of 55, which are shown in the straight bar with a gray lines. The solid bar, gray line. You can see within the first year there's this gap that starts within the first month of rehospitalization and it's for all women. But the under the age of 55 have it worse. And those are the women that are more likely to die after a myocardial infarction.

So the other point is that question you could pose is, you know, do women even experience cardiovascular disease like a man, and this comes from some data or from a term coined by Bernadine Healy from the National Institute of Health when she headed that was the first woman to head that up and was a cardiologist and she said I don't know if anyone here knows the story of Yentl but it's a book,

it's also a movie with Barbra Streisand in it so it's really great. The point that she was trying to make about using Yentl as an example was Yentl had to disguise herself as a man to be taken seriously. She wanted to study the Talmud and the only way she could was disguise herself as a man. Dr. Healy posed the question do women have to look like present, do they have to present exactly like men to be taken seriously? If so we are going to continue to ignore women and that's what happened is we continued to ignore women.

But that also got translated that maybe women always will present differently. And I'll tell you when we talk about women presenting for heart attack, the more recent data, actually, shows that women present a lot more like men, actually, than differently. Even though we have always been telling people women might present differently. And this is just one study I could actually show you three more recent studies. This is one of the three. But that are showing now that when we, actually, listen to women, they, actually, have symptoms that you would think are typical of a myocardial infarction or typical of an Jy na. This is a study called the Virgo study which was young men and women under the age of 55 and they looked at what symptoms because we really didn't know much about this younger population. 90% of them presented with a classic symptoms of chest pain, pressure, tightness or discomfort. The difference between men and women is that women often had three or more additional symptoms. Now, what we found in this study is that women more than men sought out medical care before they went on and had their heart attack, because all the people in this study had a heart attack. But the healthcare professionals were more likely to think that they were not symptoms of a heart attack in the woman and not in the man.

So again we just need to check our biases. There's other studies like the air Maye studies that was presented last year and it hasn't been published out but they showed also that when they put in artificial intelligence and listened to the conversations, 90% of women reported chest pain. Again, women had more additional symptoms so we just need to listen to our women.

Now, I'm a preventative cardiologist so I'm going to stuff briefly on the difference between risk factors. I know I'm probably using up too much time. I'll be really quick. It's important to understand that there is some differences in risk factors and these are, you know, the traditional risk factors we think about. Now, of course, there's less smoking in women but if a woman spokes, her risk for a heart disease is much higher than a man's. Same with diabetes. actually, the same with hypertension.

There's other diseases that are more common in women. Particularly depression and mental stress. And lupus and rheumatoid arthritis are female dominant. We 93 these are diseases that 90% of them are women so we need to be asking about those risk factors. Additionally the ones that are high lit in bold are things that can only happen to women during pregnancy, some so there can be things that happen during pregnancy related to those diseases and I'm going to highlight those in just a second.

But we have this traditional risk score that we use for women but the only thing unique to women is putting in that they are women. The reality is we really need to use other things and what's unique to women is they can get pregnant, right? So pregnancy is nature's free stress test and for me it's telling me the women that are at greater risk of cardiovascular disease and the people that we can exert the most effort on to reduce their risk. Things that happen in pregnancy, just focus on the first four of them, preterm delivery, gestational diabetes, any type of hypertension during pregnancy and fetal growth restrictions. And women always remember what happened during their delivery so they will give you that information even if it's not in their medical record but 80% of women bear one child and one in

three almost have an adverse pregnancy outcome and they have these adverse pregnancy outcomes within the next 10 years, many of them. So it's not they are already young but 10 years later they are still young and these with the people that we can really work on identifying and doing more effort about prevention.

We have written a little bit about this. We don't have all the answers. I will say that, you know, some may already have risk factors up front prior to their pregnancy and we are seeing that more commonly in women these days. But there may be something activated during pregnancy because pregnancy is an inflammatory state. The point is, is once you know they have had any of those conditions, though, we should be now trying to control their risk factors.

And this is just a paper we wrote that you can refer to that is just a summary of taking care of a woman across her lifespan and what are the things you want to be able to screen for. I won't dive into all of them because like I told you, I could talk about this all day. But the way that my approach is, I assess their cardiovascular risk. I also identify high risk women. Don't forget our veteran women, our black women and our south Asian women. Those are high risk groups. Think about the sex specific risk factors. We didn't get to go into breast cancer or menopausal status and all of that. The female predominant conditions ask about them. And for me that's how you personalize it. That's how you take into account their genetics. I don't need a fancy genetic test up front. I just need to know if their biologically a woman or not and that's where I start.

So I'll just leave you, you know,

(Audio difficulty.)

>> MARTHA GULATI: Already summarizes but I will leave you (?) and this is supposed to be him. He put this out on Halloween, said he was still waiting for me to be ready and as I always say to him, there's so much more to understanding women. So we have got a lot of work still to do as does he. Thank you.

>> STEPHEN HAYES: Thank you, Dr. Gulati for that excellent overview.

I'm going to now share my screen and I will transition to Dr. Wright.

>> JANET WRIGHT: Thanks so much, Stephen. What a pleasure, a tough act to follow, Martha, but a pleasure. Thank you for that wonderful overview. I also want to thank the office of women's health for the opportunity to join you all today and I'm so grateful that you're focusing on women's cardiovascular health. You have the mechanisms, you have the brainpower, you have the resources to make a real difference in the health of women across the nation. I am grateful for all you have done to date and your commitment to doing so in the future.

It's also a thrill for me to be stand witched between an expert like Dr. Gulati and three centers, community health centers around the country that have clearly excelled in many things but I know we have excelled in hypertension because all three, Esperanza and XXXX Lorain and La Clinica topaic have been million hearts hyper control champions in the past year so I look forward to hearing your presentations.

Dr. Gulati provided a brilliant overview of women's heart health and cardiovascular disease in women. And I think that she may have surprised you with some of the data that she shared. I'll just tell you, I am not likely to surprise you with anything, and I am going to go very deep into a few things, but I have

chosen them because I believe that those of you who are gathered here today can make a real difference in the areas of focus that I will discuss.

And, again, I don't think I'm going to be telling you anything new. My purpose is quite different. I, actually, want to win over your hearts and souls to the mission of hypertension control. So is all of my minutes are going to be devoted to try to convince you that that is worth your time. It's a good investment of your professional lives and I think also your personal ones.

With that, I will possibly advance the slide. I'm going to drill down. I'm going to drill down on hypertension. It is a major cause of preventable death and disease in women. It is also the major cause globally of cardiovascular death and morbidity. I am going to focus even more on something called SMBP, self-measured blood pressure monitoring. Why? Because it is evidence based, it is an equity issue. It will help us close the gap in health disparities that we see so deeply embedded in hypertension and in cardiovascular disease outcomes.

And because I know you all can do it. I want to thrill you with, in case you haven't heard about the new HRSA and OMH collaboration with the American Heart Association to advance blood pressure control largely using SMBP, and then I will end with just a call to action.

Next slide, please. So, these are facts and if you don't listen to anything else, these I want to make sure you have these facts in mind. About one in two adults in the United States has hypertension. It's defined as greater than 130 over greater than 80. The national control rate is incredibly low, only about one in four adults actually has their blood pressure under good and safe control. And we know over the last decade we have slipped. We have early reads from a number of partners and stakeholders around the country that hypertension control during the pandemic has probably slipped even further. Uncontrolled hypertension and I think this is well known to you, is the cause, not just a risk factor for, but the cause of heart attacks and strokes, heart and kidney failure. Good data now, good evidence that uncontrolled hypertension in midlife contributes to cognitive decline, a form of dementia in later year and that control actually prevents that progression. And as the doctor mentioned, hypertension is the cause of severe mortality and morbidity in pregnancy, preventable mortality and morbidity.

I think the thing that bothers me the most are hypertension are the last two bullets. The first that it strikes us unevenly across the population, grant it prevalence is high for all subsets, all colors in our country. But our African American, Native American and Alaska native populations are even harder hit than whites in the country and control rates are lower.

The fact that this exists means those subsets of our population suffer a greater burden of largely preventable cardiovascular disease. And then the last bullet is that this is intolerable. These disparities are intolerable and the high prevalence is intolerable because control is possible. And you all know and we know what works. And so it's a matter of getting those things that work everywhere to everyone and that's why I am so excited about HRSA's interest in cardiovascular health and particularly in hypertension control.

Next slide. So, I just want to show you this slide and there's a lot of detail here. But red is bad. On the top left you see the mortality from heart disease, not just heart disease events or prevalence, but, actually, mortality in heart disease over about a seven year period at the county level. And the areas in red show an increase in mortality, and both of these pictographs are showing age group 35 to 64 years

old. So I think many of us are accustomed to seeing clusters of everything bad happening in the stroke belt where I grew up. But these maps show you that throughout the country, in counties from Maine to California and Florida to Washington, we are seeing increases in heart disease mortality and stroke mortality in our workforce, in our parents, in our caregivers. These this is the future of our country. We have a health crisis on our hands and in large degree this has to do with the rise and the loss of control of hypertension.

Next slide. So, I want I won't dwell on this because Martha mentioned it, but if we look just at women during their pregnancy we see both discrepancies between black and white. This is also true for American Indian, Alaska native, Asian and Pacific Islander women but I'm featuring here the differences in black and white women and looking at the cardiovascular clauses of maternal deaths. And as you all know, about estimated by CDC and others that about two thirds of these deaths are preventable. You see the cardiovascular causes there.

Next slide. So, I want to dwell a little I want to go deeper into the hypertensive disorders of pregnancy and how they impact future cardiovascular risk. If you just click through a couple of those, keep going there. Thank you. Sorry. Yeah. So HDP, you see what is comprised by that designation of hypertensive disorders of pregnancy. We know the incidence of this problem is rising in the United States now and that more than one in 10 women will experience at least one pregnancy complicated by hypertension. These disorders double a woman's lifetime risk of heart attack and stroke. But it does more than just do that.

Next slide we now know that hypertensive disorders of pregnancies contribute to a diverse range of cardiovascular disorders, accelerates coronary artery disease, increases the risk of heart failure in later years, as well as valvular disease. These were surprises to me. You see graphs at the bottom that show the increased rate and risk and age at incidence. So, this is literally hypertensive disorder of pregnancy marks a woman for life as a high risk person. And Dr. Gulati's point about screening women very soon following that pregnancy and following them closely to mitigate their risks. It's incredibly important. And our HRSA community health centers are well positioned to take that history, tag that woman and make sure that she gets what she needs to prevent these diseases in her future.

Next slide. So, I won't walk through each of these but I just want to make the point that even if this hypertension preceded the onset of pregnancy, it carries with it significant risk not only to the mother, but also to the fetus and the neonate. There is no data also showing it may mark that child to develop premature coronary artery disease and other cardiovascular diseases later in life.

Next slide. So, this slide I borrowed from my colleague in reproductive health at CDC and it was in reference to maternal health. But hypertension is also a threat before and during the reproductive ages and years after.

Next slide. How do we address that risk? How do we empower and equip women to manage their to identify whether they do or do not have hypertension and to put in place both the healthy habits and, if necessary, medication to help them avoid those preventable events? I think the key is something called SMBP, self-measured blood pressure monitoring. This slide talks about what it is and what it isn't. But what I will leave you with is it is the way to manage blood pressure. Going into an office is both inconvenient, it is not necessary and it's likely to result in an inaccurate measurement compared to a

pattern of measures that that woman can take at home and exchange those readings with a clinician team member.

Next slide. So, I will beat you over the head with this idea of SMBP being evidence based. There are numerous systematic reviews, task force recommendations and even clinical practice guideline recommendations for SMBP. Clearly more convenient for a woman to be able to monitor her pressure at home and correspond with a clinical team member. It reduces the likelihood of over or undertreatment and it actually creates a sense of ownership for that woman of her blood pressure. There are multiple challenges which I will hit on in a moment. But we know there are pockets of excellence across the country that have solved and overcome the obstacles and many of those are community health centers.

Next slide. Just a virtuous feedback loop cartoon that shows while the patient is contributing readings and insights into their behavior, problems that they might be having with medications, the clinician, on the other hand, is analyzing the readings that he or she receives, giving timely feedback to that patient and helping problem solve, all in a virtual I'm sorry, in a virtuous but also now potentially virtual feedback loop.

Next slide not to underestimate the challenges that we have, there are many, but this slide is meant to convey that while SMBP does not work well for everyone or everywhere yet, we at least have identified where the challenges are and how we can address them. I won't walk through them but I suspect you will hear from our champions coming up how they have overcome these challenges.

Next slide I just want to call out this wonderful initiative that is now underway in 496 health centers across the country in 48 states, D.C. and the territories, over three years using SMBP technology to focus on improving blood pressure control rates across a racial and ethnic minority populations. Very excited about this and I can't wave flags enough in full support.

Next slide. I'll just close by saying last October the surgeon general released a call to action to improve blood pressure control. Within it you will find information about SMBP and a list of resources. And on the next slide I included a couple more. There is a link to the call to action. I also included this link to join the SMBP forum that million hearts has overseen for the last couple of years. I think the community is up to about 500 people now who join these quarterly calls. But please join if you are interested in contributing what you know or if you have suggestions on how to advance this practice more rapidly.

Next slide. These are also SMBP resources. I won't read them, but they have all been road tested and are very rich in content and also practical. I will spend just a second on the very last one. If you follow click ahead to my very last slide. This is a toolkit put together by a team in the division for heart disease and stroke prevention. They took the Kaiser Colorado program which was million hearts' first hypertension control champion, but because Kaiser is a closed system and has some advantages that are not present in other clinics and practices across the country, they took Kaiser Colorado's program and field tested it with two community field centers, South Carolina and Tennessee. And they adapted the Kaiser approach for those settings. They wrapped that into a toolkit that is free. It is a set of modules that you can get online. And I highly recommend you take a peak at that. And please let us know how we might improve it.

Last slide, I think. Thank you so much. And I can't wait to hear from the champions experts in the field. Turn it over to you, Stephen.

>> STEPHEN HAYES: For the call to action. We are now going to transition from hearing from our community health centers and first you will will be Carrie kindle Berger from Esperanza health center. Carrie, I believe you're on mute. I think we can hear you now.

>> CARRIE: Good afternoon. Can you all hear me?

>> STEPHEN HAYES: Yes, thank you.

>> CARRIE: Hi, everyone. My name is Carrie kindle Berger, I'm a family health practitioner at Esperanza health centers in Chicago and I'm a family provider lead. I'm here today with Rachel Chung our practice transportation associate and Ted Hufstader, the director of quality and practice transforms. I am here to talk about our hypertension efforts at Esperanza during COVID 19.

Next slide. So today I want to talk a little bit about our health center and tell you all about our team based approach to care. And then I want to tell you about how we have adapted our the way that we provide care for our patients with hypertension during the COVID 19 pandemic. Our mission at Esperanza is to differ health and hope to underserved communities in Chicago. So, we center the values of caring, quality and family in our care.

Next slide. Esperanza serves a predominantly LatinX populations at five sites on the southwest side of Chicago. So we have been a leader in testing and vaccination during the pandemic. We shifted from primarily seeing patients for telehealth visits to primarily seeing patients for telehealth visits back in April of 2020 and now we continue to see patients over telehealth and in person. And lastly, as it sounds like we all are all of us health centers are, we Esperanza was named a million hearts hypertension control champion in 2019.

Next slide. So our care team model is a reflex of those shared values that I mentioned before. We put the patient and their family at the center of the care that we provide. And around them is a team of three other members who work together to support the patient. We work with medical assistant and primary care provider but we have the support of care coordination on every team that sees patients.

Next slide. The Esperanza community was disproportionate reply affected by COVID 19 and I think you can see pretty clearly in this chart. So the blue line is the Chicago Department of Public Health positivity rate for COVID 19, compared with the orange line for the Esperanza positivity rate consistently higher than the city rates.

Next slide. And as we adapted to the pandemic by adopting telehealth, we saw our hypertension control rate drop. So you can see in March the blue line reflects the hypertension control rate and we saw that just going down. The gray line represents our control rate back in 2019 when we were doing quite well. And last year we ended our year with a much lower control rate at 67%. One thing I want to note here is that as a clinic we, actually, maintained two separate hypertension control rates. The first one was the one that we reported to UDS. And according to the 2020 rules, that included only blood pressure levels that were obtained in clinic by our staff. But we maintained a second rate that we looked at that looked at blood pressures that were checked both in clinic and by patients at home and self-reported to us. We thought that was really important because for a couple of reasons. We thought

we wanted patients to be encouraged to stay home. We didn't want patients to come when there's a high risk during the pandemic.

But we also think that self-monitoring blood pressure is very important tool as (?) was talking about with us earlier.

This blue line actually reflects both blood pressure levels that were checked in clinic and also those that were self-reported by patients from home.

Next slide so, the challenge we are seeing is that after April, many patients were having all of their blood pressure visits from home. So, 50% of blood pressure visits after April I'm sorry, 58% of blood pressure visits after April were telehealth visits.

Advance. Which meant that about a third of our patients had their last blood pressure reading in March or earlier. So we weren't going off of great information when we had telehealth visits with patients to talk about their blood pressure management.

Next. So what did we do? We mobilized to get our patients' blood pressure monitors at home. So, we received funding to get 1,000 blood pressure monitors to give to uninsured patients. Our care coordinators mobilized to get blood pressure monitors mailed to patients. They showed up at our mass vaccination site and gave them to patients while they were there to get vaccinated. And then there's a massive outreach effort by them as well, with education and training. We also got providers up to date information about all of the evidence that we are seeing about self-monitoring blood pressure at home.

Next slide. So, I think it was a wonderful segue to go after Dr. Wright because I think she provided all of this information. But why is self-measured blood pressure important? Most patients at when the pandemic began did not have a blood pressure cuff at home. And we wanted to have those values for these visits. It made our telehealther than counters meaningful. And then finally it was a really it was a really great tool for patient engagement and empowerment.

Advance. So, hypertension, this new initiative for hypertension control changed our or we changed our care model. We used our care model, our care team model to adapt to this new way of providing care for patients over telehealth with self-monitoring of blood pressure. And you can see that everyone had a role in this new initiative. But I want to highlight that the care coordinators had a particularly important role in making sure that patients had blood pressure cuffs. And also in education and then finally, in getting in connecting blood pressure data from patients back into the EHR so that providers could act on it.

Next slide. We depended on a number of wonderful key partners, so, west side united convened stakeholders in this project and they provided funding for blood pressure cuffs. And then the American medical association and the American Heart Association gave us clinical and technical support and have been wonderful in that way.

Advance. So, where are we now? So, looking back at the control rates from 2019 and 2020, we started this year at a much lower rate and that's starting the year on telehealth with patients who still do not have blood pressure cuffs at home. But we are seeing that we have distributed now 500 blood pressure monitors and more are going out and that rate of blood pressure control is rapidly increasing. So we

expect to see more we expect to see ongoing improvement as these blood pressure cuffs are distributed and our patients adopt this practice.

Advance. Thanks, everyone.

>> STEPHEN HAYES: Thank you so much, Carrie, for sharing that innovative approach to COVID 19's challenges at Esperanza health centers. Now we are going to shift to Jessica springer and Judy Cilona from marine county.

>> Thank you for giving us an opportunity to share our story. I'm Jessica springer, board certified family nurse practitioner and chief clinical officer of Lorain County health and dentistry and with me Judy Cilona. We are here to share you with our success strategies of women in cardiovascular disease.

Next slide. Lorain County is in the heart of the Midwest, located right on the great Lake Erie just 20 minutes west of Cleveland in northeast Ohio. We are composed of a melting pot of cultural diversity, population in urban and rural small town America with a long shipyard and manufacturing history, which continues to be on the decline and that has contributed to the above average poverty rate of 26.2%.

Next slide. Lorain County health and dentistry is the only federally qualified healthcare center in Lorain County and is the largest safety net that provides a full range of services at all seven clinical sites I'd like to call your attention to the blue box. Which serve over 15,000 unduplicated patients a year and of that 6007 are female ages 18 to 94, with an 18% women with cardiovascular disease. And 13% with depression.

As research shows there is a link between depression and heart disease W that, we keep a close eye on that and use our growing integrative behavioral health team to help us address that.

Next slide. Cardiovascular disease in Lorain County women is slightly below the national average and is the second leading cause of death, closely trailing cancer. As you can see the chart is from our most recent community health assessment and public health data set. This is all important data that attributes to our success. It helps us to target those primary prevention strategies with emphasis on risk. With the highest rate of obesity, cholesterol, high blood pressure, smoking and diabetes.

Now I will hand it over to our director of quality, Judy Cilona, to discuss specific success strategies. Judy.

>> JUDY CILONA: Thank you, Jessica. What you're seeing in this slide is our most recent 2019 UDS scores and one of our strategies is that we measure these all the indicators monthly. There was a time I remember we just looked at these quarterly. And I can tell you they were not that high. So it's really important to have the proper data analytic tool so you can pull the numbers at any time. We can pull up the list of all of our patients with hypertension. We can look at those that were greater than 130 over 80 and we can reach out to them through care management. So, when we were measuring them quarterly like I said, it was our scores were not that high. I wasn't the quality manager there, but I can tell you in fairness it was a manual audit. It was very difficult and time consuming to pull up and see where we were at managing our hypertension and our other indicators.

Next slide. So, now we have a tool called Zara drives and a data analytic that works with our NextGen and we use this for many things. One of the reports that I am showing you here on the left is called the PVP. And this is our pre visit planning tool. We pull this up every morning and we use it in our huddle. So it pulls up a list of all the patients that the provider has on their schedule for the day and the provider

huddles with the clinical assistant and anyone else providing care to that patient that day. You can see that they will you can see the risk score. You can see their last blood pressure reading. You can see if there's any gaps in care. One of the other things that we use this tool for is population health. We can also utilize the next gen EMR. That gives us pop up reminders if the patient is due for any kind of screening, it will pop up if their blood pressure is out of range. And our integration with LabCorp and our Colina sync integration, we get our test results sent automatically into the EMR.

Next slide. So also the team based care approach, everyone in our organization, we really do consider as part of the care team, even that first call into the health center with our call center. Our call center staff is trained if a patient is asking for an appointment, if they have hypertension, they are going to automatically look and make sure that they don't run out of medication before they that appointment scheduled time is. But the health coach sees the patient before the provider. And they administer a prepare tool and this tool looks for social determinants of health that may be a barrier to care for our patients. And the health coach has an up to date community resource finder so any kind of barrier that that patient may have, the health coach is going to connect them to resources in the community. If it's more than that, they may need to connect them with our care manager or it might spark a referral from the provider to our behavioral health team.

Next, they see the clinical assistant and we use LPNs. That clinical assistant is going to do a good, solid, old fashioned, manual blood pressure reading on that patient. The clinical assistant is trained in motivational interviewing. In fact all of our clinical staff, all of our team is trained in motivational interviewing. So, the clinical assistant helps that patient set goals. And we revisit it at every visit. She is going to he or she is going to help that patient determine what motivates them to wellness and to remain at optimum health. So this patient, you can see, they would like to remain healthy enough to visit their son in California in 2022. That's considered a functional lifestyle goal for that patient. So, what can that patient, what steps can that patient take to make sure that they stay healthy enough?

So we help them set goals. Following the DASH diet or maybe they are going to take the stairs at work instead of the elevator three times a week. They help them set self-management goal and they revisit it at every single visit.

Next slide and our care management team, for the patients that are of highest risk they are going to reach out to each patient to help them do help educate them, to check in with them. Each patient that has a diagnosis of hypertension, it's like muscle memory. Our providers automatically are going to prescribe them blood pressure cuff so that they have the ability to check their blood pressure at home. So the care team will reach out to each patient and that's one of our columns on an Excel spreadsheet. Do they have a log? Do they have the ability to check their blood pressure at home? So not only do we make sure that they got that prescription filled and they had no barriers with their managed care plan and they get something to monitor their blood pressure with, but they want to make sure that they know how to use it. And we have a high percentage of Hispanic patients in our practice, our care managers are bilingual, they are going to work with that patient and make sure they know how to take a really good blood pressure and log it and bring it back, you know, at their next visit.

So, one the list that we have here we are able to pull from our Azara drives tool and this is in particular women with hypertension. So we are reaching out to that group now, our care team is, and they are using the information in our EMR and kind of running their information through the Framingham to

their risk for cardiovascular disease and engage them in their care and to keep them engaged in their care.

>> As a primary care provider it is my job to tie it all together with that total population and team based care approach. The success strategies that Judy talked about begins with our weekly individual provider UDS transparency reports and the morning huddle as we review that data analytics and that previsit planning tool, that allows us to truly identify those gaps in care. I would like to bring your attention to the diagram. As you can see, our care team has already identified those underlying determinants, those environmental and intermediate factors. As providers we review, refine and build a treatment plan with the patient based on prevention and disease process.

Our success begins with the accuracy of that previsit planning and we continue to focus and refine that treatment plan. And goals with the patient and our care management team. As stated earlier, that correlation between depression and heart disease, we use the Esper screening tool and refer the patient to our integral behavior health team. We have a smoking cessation or in our smoking cessation we use our onstaff certified tobacco treatment specialist. We continue to encourage the patient to successfully complete the YMCA blood pressure self-monitoring program, educate them on that use of self-blood pressure logs, diet logs, use of the my plate app, education on cholesterol and plant based diets with referral to the dietitian, exercise plans and actually handing our patients a prescription for exercise. And building that exercise program as well. Each of these strategies has led to the successful patient outcome of cardiovascular disease at Lorain County health and dentistry. Thank you.

>> STEPHEN HAYES: Thank you. And now we will turn it over to Dr. Pamela Valenza from Tepeyac Community Health.

>> Thank you for having me this afternoon. Good afternoon evening. My name is Pamela I am a family physician and the chief health officer at Tepeyac Community health center. We are located in Denver, Colorado. We are a Latino led, woman led organization and our mission is to inspire health, wellbeing and humanity in our community through all of life stages.

Next slide, please. So just to give you a little bit of background of who we are, we were funded or started through a community grassroots mission that was in response to a community health needs assessment, identifying that there were significant care gaps and healthcare gaps in the uninsured Latina population in Denver so our clinic was initially built by community members to get a two room clinic up and running back in 1994 and over the years the clinic grew, was staffed by volunteers and then in 2015 we became a federally qualified health center. I just last year we changed our name from to Tepeyac Community health center. We are a smaller health center. We serve approximately 4500 unique patients, about 12% pediatrics, 10% geriatrics and 59% identify as female. 96% of our patients identify as Hispanic Latino, 88% of our patients prefer their services in Spanish, and 70% are uninsured. So we are a little unique among the community health centers with such a high uninsured rate.

We provide full spectrum integrated medical, dental, behavioral health, nursing, case management, lab, ultrasound and referral services. We also have prenatal care, we are a (?) HIV specialty care site. We serve individuals with intellectual and developmental disabilities and we also provide match services for substance use disorder.

In 2023 we will be opening a new close to 25,000 square foot facility to expand our medical behavioral health, dental, we will add x ray, continue our ultrasound and have a full pharmacy, lab and community space for our patients.

Next slide, please. So, what I'll be talking about a little bit is how we have addressed cardiovascular health and how we focus on the intersection of the patient in the context of community. And so the five areas that I will be talking about are prevention, behavioral health and wellness, our SDOH screening which is the social determinants of health, nutrition and movement, and dental. And this is a photo of our staff at our last in person all staff meeting on February 2020 for heart health awareness month. We were wearing red so this was our part of our staff and our staff photo.

Next slide, please. So for prevention and medical management, similarly to the other health centers really the importance of primary prevention, how do we provide routine medical care. Specifically in our population which is very predominantly uninsured how we optimize medication register mans using good RX. Our case managers seek out patient assistance programs to really make sure that patients are on appropriate medication regimens and that they can afford it because we know that's a barrier to care name in patients who are unable to afford their medication. We also have group visits that during the pandemic we pivoted from in person to virtual group visits so we have diabetes group visits, we also have a women's support group that is led by our behavioral health team and we also have a (?) which is a mom bib group visit that is jointly led by medical and behavioral health.

We also have done some home self-management support for our uncontrolled hypertensive patients, our pregnant women with gestational hypertension and diabetic patients. We did purchase blood pressure monitors, glucometers to give to patients for free and we would do that in coordination and follow up with our medical providers and registered nurse for that support with the self-management support, the self-measured blood pressure. We did not have Bluetooth blood pressure cuffs. We have the armed blood pressure cuffs so we couldn't enter any of that information into our EMR for USD but that was helpful for us insuring that we were getting accurate measurements with our patients.

We also have a wise women program and that's in partnership with the Colorado Department of Public Health and environment. This is really a targeted community outreach effort that's focused on uninsured women aged 40 to 64 who are outside of our patient population. These are community members, women who are out in the community who are less than 250% of the FPL and we bring them into the clinic, we connect them for care, we perform a cardiovascular health risk assessment, tobacco use assessment, health risk screening exam and labs, counseling and healthy behavior support services.

Next slide, please. For behavioral health and wellness, with our behavioral health team they are in the office every day to do an integrated harm hand off and they provide traditional therapy services for adults and children. Throughout the pandemic we were seeing much higher rates of PTSD, depression, trauma, anxiety and so our behavioral health team really stepped it up to increase our focus on wellness and cultural humility. Incorporating mindfulness moments, med tracing training, coping strategies not just for our patients but also for our staff as well since the majority of our staff are women as well.

We also had wellness packages containing stress relaxation techniques, mints, aroma therapy, behavioral health therapy that we gave out to patients and staff. Started a Facebook live wellness tip that we were doing three times a week in Spanish since we found that a lot of patients were lacking the information that they needed to understand elements of their health, elements on how to destress.

Next slide, please. For our social determinants of health screening we also used the prepared tool and so from information from that prepared tool, we wanted to create focus partnerships with community organizations to support our patients (?) needs. So in the last year we have created a medical/legal partnership through the Colorado nonprofit development center and they provide free legal services for patients facing housing issues. We also started a food prescription program with save a lot and that is to provide our patients with free food vouchers to purchase fresh fruits and vegetables so this image is one snapshot recently from March 21st to March 27th of the food vouchers that were redeemed by our patients at the store and the fruits and vegetables that our patients purchased.

We also partnered with Uber health to get to and from the clinic.

Next slide, please. For nutrition and movement we have a traditional (?) model with our health promotions team and our health promotions team typically was community facing. They were pre pandemic leading yoga classes, Zumba classes and cooking matters classes. They pivoted as well and started doing virtual cooking matters classes. And so we would have patients participating virtually in their own kitchen while our health promotions team was in our community kitchen and providing healthy cooking and nutrition support and recipes. We also were a pilot site for a community based electronic referral system. And that allowed us to refer patients to other diabetes prevention programs, diabetes self-management education programs and a hypertension self-management support program. We have a community garden that's located on our property and we have our staff, community members and patients who participate in that community garden and that's in partnership with Denver urban gardens.

Next slide, please. And as we know, poor dentist can affect a patient's cardiovascular health and focusing on expanding our dental services. In 2019 we had the built hired our first dentist. We started targeted outreach for pregnant women and children and also do school based dental outreach in the local elements school in our local GES neighborhood.

Next slide, please. So, all in all, very briefly to say, you know, as we see in the prior speakers, cardiovascular health is really multifactorial, there are a lot of risk factors. It's comprehensive and so our approach is really to address a number of those areas and make it a culturally sensitive, culturally appropriate manner.

Next slide. I wanted to share this last image of our slide. This is an artist Daniel Luna who does a lot of artwork around our clinic, our website and Facebook page if anyone has any more information. Thank you.

>> STEPHEN HAYES: Thank you very much and thank you to all of our speakers for sharing these innovative approaches and opportunities for so many joining today that hopefully we will be able to replicate and share and expand across our work. I know we are just a couple of minutes over our scheduled time. But if speakers are able to stay on, we do have a few questions in the chat and if anyone any participants additional questions, feel free to drop them in the chat. The recording will be available and posted on HRSA's website in the next week or so and we will provide PDFs of the slides as well.

We did have a question initially of how do we verify accuracy of blood pressure devices after a year or so of use by patients? I think the question was specifically for Carrie and Esperanza. Please, anybody jump in as well if there's anything you would like to share.

>> JUDY CILONA: Hi. I can answer that question. How we address that at Lorain County health and dentistry, we would have our patients, if they have had it longer than a year or if we have any questions about the accuracy, we have the patient bring that in and we will use it on checking their blood pressure against a manual blood pressure check. If there's any issues with it, we will work with the managed care plan to replace that.

>> STEPHEN HAYES: Thank you, Judy. Another question we had was, how do health centers motivate people that continue to or to continue their monitoring. Do monitors sit on desk as sort of some of the concern expressed by the question. Anybody have any perspective there? I know some of these programs are sort of on the newer side because of COVID but

>> MARTHA GULATI: If I could add into that. I think patients tend to do it when they know they are coming to the doctor or to the clinic visit so you see their records are blank for a huge portion of time and then maybe the week before their appointment they start taking it again. It's okay. I mean, there's ways to do prompting, that you can use your team to prompt them either now through electronic health records to be regular reporters. There can be prompts they can put into their own calendars or onto their phone to remind them to do it once a day. So if you really need somebody to be doing it more regularly because you're concerned about it, I think that encouraging them or even programming them, I found in my own office I will program it for them and then I'm the annoying reminder that always goes off to say, you know, please check your blood pressure and don't forget to send it to Dr. Gulati.

So there's different ways. But I agree that it is, you know, ainsurera, it's I was excited to hear Carrie's presentation because that is the biggest barrier for most of our patients, if they can't afford it, it's those people who are often the people that we really need these devices for.

>> PAM: We found regular check ins with patients, kind of holding that accountability is helpful to respectful insuring that the patients are getting engaged and using motivational interviewing to identify what is the highest priority for that patient and how do we as providers meet the patient's needs and how they want to approach their care in a way that matches kind of the end goal of getting their blood pressure controlled.

>> JUDY CILONA: We are partnering with one of our largest managed care programs for a pilot program. They have provided scales and a blood pressure self-monitoring cuff for the patient. And each day the patient calls in to a number and if the patient doesn't call by 10:00, they let us know and we are calling the patient, reminding them to check their blood pressure, check in with their weight and so that's been going very well.

>> STEPHEN HAYES: Thank you all. That's all the questions we have in the chat. But appreciate all of the expertise shared on today's webinar and want to wish everyone a happy National Women's Health Week. And we hope to keep in touch with everyone soon. Reminder the recording will be available on the HRSA website in the next week or so. So from HRSA both HRSA office of women's health and the HRSA a heartfelt thank you to all of you. Take care.