**Video Transcript:** High Impact Practices to Strengthen Hypertension Services and Improve Maternal Health

**Naima Cozier:**

Welcome. Welcome, everyone. So excited that you're able to join us today. I am Naima Cozier with the Reproductive Health National Training Center, and I am absolutely delighted to welcome you to today's webinar focused on high impact practices to strengthen hypertension services and improve maternal health outcomes.

I have a few announcements before we get started. The first is that everyone on the webinar today is muted, given the large number of participants. However, we do plan to have some time for questions at the end of the presentation. You can ask your questions using the chat at any time during the webinar. A recording of today's webinar, the slide deck, and transcript will be available on rhntc.org within the next couple of days. We also have closed captioning that has been enabled. And to view, please click the CC icon at the bottom of your screen.

As always, your feedback is extremely important to us and it's enabled the RHNTC to make quality improvement in our work based on your comments. So please take a moment to open the evaluation link that is in the chat and consider completing the evaluation in real time. Also, please remember, in order to obtain a certificate of completion for attending the webinar, you must be logged into rhntc.org when you complete the evaluation.

Finally, this presentation was supported by the Office of Population Affairs and the Office on Women's Health. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of OPA, OWH, or HHS. For those who are interested in continuing education credits, this webinar has been approved for a total of one contact hour.

Now I'd like to introduce our presenters. Dr. Kathryn Menard is an Upjohn Distinguished Professor of maternal fetal medicine with the University of North Carolina at Chapel Hill School of Medicine. Dr. Menard has been instrumental in developing the AIM patient safety bundle on severe hypertension pregnancy that we will be discussing later today.

Meg Sheahan is a senior clinical consultant at the Reproductive Health National Training Center. Meg is a certified nurse midwife and directed the Title X program in the Virginia Islands for about 10 years before joining the RHNTC.

Our hope today is by the end of today's webinar, you will be able to describe the impact of hypertension on health across the lifespan and maternal health specifically. This includes its impact on racial disparity in maternal morbidity and mortality. Also, that you'd be able to describe high-impact practices that sexual and reproductive health providers can implement to strengthen hypertension prevention, recognition, and control for improved health outcomes. And

finally, that you'll be able to identify two resources that sexual and reproductive health providers can use to implement high-impact practices for hypertension.

We'd now like to take a moment to see where the group is in terms of their confidence to do some of these webinar objectives before our presentation. We're going to launch a poll. We'll ask you to rate your confidence from one to five where one is not confident at all and five is very confident in order to be able to do objectives one and two. How confident are you in your ability to be able to describe the impact of hypertension on health access or health across the lifespan, including its impact on racial disparities in maternal morbidity and mortality? Also, how confident are you in your ability to describe high-impact practices that sexual and reproductive health providers can implement to strengthen hypertension prevention, recognition, and control? Please take a moment to complete that poll.

All right. Let's share the results of the poll. All right. Wonderful. In terms of the very first objective in your ability to describe the impact of hypertension on health across the lifespan and maternal health, it looks like the majority of folks are right in the middle at a three. Then in terms of the second, very similar results. Around 44% are at a three in terms of your rating of confidence. With that, I'd like to thank you for your participation in the poll, and now I'll pass it over to Meg.

**Meg Sheahan:**

All right. Thanks, everybody. Let's just do some level setting groundwork here. Let's start with the impact of hypertension on overall and reproductive health. As you know, hypertension is a major preventable risk factor for heart disease, for stroke, and other health problems, and it's the leading cause of death for women in the United States and worldwide. It causes about one in every five female deaths in the United States. Left uncontrolled, hypertension increases a person's risk of developing other health conditions, including heart failure, kidney disease, and cognitive decline later in life. Something that surprises a lot of people is that it can also decrease fertility.

Hypertension is a leading cause of maternal morbidity and mortality, and that's one of the major reasons that we're focusing on it today. I also want to say it's a major cause of fetal and neonatal morbidity and mortality, including intrauterine growth restriction and complications caused by preterm delivery.

Further, hypertension limits the contraceptive methods for which an individual is medically eligible. For example, combined hormonal methods, so that's your combined pills, your patch, your ring, are MEC category three, even for people with adequately controlled hypertension. But for people who have hypertension above 160 over a hundred or have vascular disease, that is amplified to category four, so it's really a no-go. These limitations can make achieving the desired number and spacing of children more difficult for some people.

Hypertension is also a leading contributor to health disparities with Black people being significantly more impacted. We're going to talk more about this in a minute. For these reasons, which we went into really briefly, early prevention, screening, diagnosis, and management of hypertension, ideally before pregnancy occurs is central to improving health outcomes, to reducing maternal mortality, and to addressing health disparities. It's a really important issue that we in the family planning space need to take on.

Got a little pop quiz for us here. How common is hypertension in the United States? Go ahead and click on your response, and we'll start to share out some answers.

Give it another minute. Answers are starting to roll in. We're seeing some people say that the poll doesn't work, so we'll try to work on that. But in the meantime, I'll share some responses that I received on my end. About 60% of people said correctly that almost half of all adults have hypertension, and 38% said about a quarter. Let me share some info.

Bottom line, in the United States, hypertension is really common. According to the CDC, almost half of all adults and over one in... Sorry, over 4 in 10 women have hypertension. 60% of us got that one right. And we're seeing more and more young people with hypertension. A 2019 study in the International Journal of Cardiology found that 16.5% of women aged 20 to 44 had hypertension, and the prevalence of hypertensive disorders of pregnancy is on the rise complicating nearly 15% of all hospital deliveries between 2017 and 2019.

I've got another quiz for you. Is the prevalence of hypertension in the United States increasing, is it decreasing, or is it staying the same? Go ahead and enter your response. Oh, things are looking good here so far. Well, the answer isn't looking good, but the number of us who get the answer right is looking good. Great.

Most answers are in, and this group knows what it's talking about. 100% of the respondents in this room said that the incidences of hypertension is increasing, which is correct. According to the American College of Cardiology and other sources, the prevalence of hypertension is on the rise. It's increasing the increased prevalence of traditional hypertension risk factors in young people, including obesity and diabetes, increases the risk of developing hypertension. What we are seeing more and more evidence in support of is that psychosocial factors, like chronic exposure to poverty, racism, hostility, and emotional stress, are also linked to hypertension and may contribute to the increasing incidents in young people.

And concerningly, many people with hypertension don't even know they have it. It's estimated that nearly a third of people of reproductive age who have hypertension are not aware of their hypertension status. This increasing incidence in hypertension in people of reproductive age really does call for a renewed focus on prevention, on early surveillance, and on prompt treatment to prevent complications in future cardiac events, including during pregnancy and the postpartum period.

This graph tells us a little bit more about prevalence of hypertension among adults in the United States. It's broken out here by gender, and race, and ethnicity. What we can see here is that hypertension is very prevalent across the board, but the prevalence of hypertension is significantly greater in non-Hispanic black individuals across men and women.

Further, and this is something that isn't portrayed here in this graph, but it's something that I think is really important for us to talk about, is that hypertension is more common and more poorly controlled amongst people of lower socioeconomic status groups. Several measures of socioeconomic status, including lower income, lower educational attainment, employment, and insurance status, and certain environmental factors, are associated with an increased risk of hypertension.

And we have really solid documentation of the intersection of these socioeconomic factors with race and ethnicity and with higher rates of morbidity and mortality from complications of

hypertension. For example, I'm going to say this. Let it sink in a little bit. Black women 20 to 44 years old have a prevalence of hypertension that's more than twice that of same age individuals in other racial and ethnic groups, and Black women have a higher risk of dying from hypertensive disorders of pregnancy.

Inequitable access to the social and economic and environmental conditions needed for health and the impact of stress, poverty, and racial discrimination are linked not just to hypertension but to awareness of hypertension status and hypertension control. Hypertension control rates are lowest among non-Hispanic blacks compared to other groups, so it follows that the risk for hypertension mortality is nearly double for non-Hispanic black people when compared to non-Hispanic white people. Sharpening the focus on hypertension in the sexual reproductive health setting is one way that we can address disparities associated with hypertension and poor hypertension control.

That said, we've got some strengths and some opportunities to make a positive impact here. Outpatient sexual and reproductive health providers, especially Title X providers, deliver care to a diverse population and one that is vulnerable to hypertension. For example, two thirds of Title X clients have incomes at or below the federal poverty level and nearly half are uninsured, factors that we know are associated with higher rates of hypertension and higher rates of uncontrolled hypertension.

More than half of all women who obtain healthcare from a Title X family planning provider consider that provider to be their only or their usual source of care. This is a two-sided coin. On one side, it means that if that client doesn't receive hypertension treatment or prevention and control services from that title provider, they're very possibly not going to receive it anywhere else. On the other hand, we have an opportunity, and that's a golden opportunity, to improve outcomes by offering hypertension services.

Another strength that we can leverage is that sexual and reproductive health providers already provide at least some level of hypertension services as a routine component of care. We know people are getting their blood pressures taken when they walk in the door before they're prescribed certain types of birth control and things like that. We can leverage that and build on that strength.

Also, we know that the majority of clients in a sexual and reproductive healthcare setting are people of reproductive age who have not yet developed hypertension, so we have this golden opportunity for prevention or early detection and management. We also know that sexual and reproductive healthcare providers are often well engaged with the community, so can promote the availability of services that are appropriate to those served and also provide effective referrals.

I want to say this though about referrals. We know from a study published in the Journal of Women's Health, and we also know from our own personal experience working in this space, that while most Title X clients who needed referrals related to cardiovascular health received them, few of these clients actually follow through with attending the referral appointment. So we have this opportunity, again, to improve outcomes by providing referrals and also strengthening our referral systems to make sure that there's follow-through.

This lays out the opportunities and also underscores the importance of providing hypertension screening, diagnosis, and management seamlessly in-house whenever possible. With this, thank you. I'm going to pass it over to Dr. Menard.

**Dr. Kathryn Menard:**

All right. All right. Well, I'll take the baton and pick it up and talk a little bit about HIPS, high impact practice sets. The Reproductive Health National Training Center and the American College of Obstetricians and Gynecologists have adapted patient safety bundles that have been created by the Alliance for Innovation of Maternal Health to create some high impact practice sets that we're calling HIPS.

I don't want to assume that you all are familiar with AIM, but AIM is an organization that has been funded by HRSA and developed safety bundles in a multidisciplinary manner for clinical conditions that are specific to support best practices that make particularly birthing safer and are available to all on the internet with an abundance of supporting materials that are available on the AIM website. They are particularly pregnancy focused, but many of the principles and the safety elements that these are generalizable to preconception and other women of reproductive age for sure.

While not exclusively for the inpatient setting, most of the AIM bundles were focused on and implemented in birthing hospitals in the hospital setting. But the HIPS highlight evidence-based practices that can be implemented in the outpatient setting to improve maternal and health outcomes. That's kind of where we're focusing today.

The AIM bundles tackle an array of topics, and they are included here on this list. Today specifically, we're going to be talking about hypertension. And subsequently, there'll be available resources on cardiac conditions, substance use disorder, mental health conditions, and postpartum.

The way the AIM bundles are structured is structuring them in a very consistent way across all those conditions with what we call the five Rs. We've taken that model and used that for the HIPS as well. Similar to the AIM bundles that are, again, implemented primarily in the inpatient setting, we're taking this to the outpatient setting and including a structure that many clinicians have really become... the work of the inpatient setting have become accustomed to using the structure. The structure that this allows is implementation that's consistent and importantly measurement that can be consistent in each of these categories.

The first R is readiness. By readiness we mean that all of the needed protocols and processes are in place that can provide the seamless care that Meg referenced. We've developed and maintained a protocol for hypertension prevention and control services, referral policies and procedures that are in place, and, importantly, a set of referral resources and indeed language that works to assist individuals that need those referrals to adhere to those recommendations and actually access those referrals.

It's important that staff be trained on these policies and procedures, and, importantly, again, to train on strategies for care team members to mitigate the impact of biases that might go into play and enhance equitable care.

The second R is recognition and prevention. In recognition, it's exceedingly important, particularly in the outpatient setting, that we recognize hypertension. We can assess and document. It's important to assess and document if a client is pregnant or recently postpartum as well. The reason that's very, very important... That can be done by asking the simple question, "Are you pregnant or have you been pregnant in the last 12 months?" The reason that's exceedingly important is that blood pressure thresholds that we get very concerned about in the non-pregnant individual are different than those that we care about in the pregnant or recently postpartum individual.

A blood pressure, for example, of 162 over 110, it's high. It's high, but it's tolerable in somebody who's maybe 55 years old and has chronic hypertension, maybe some renal disease. That high blood pressure, we don't want it to be that high, but they see that frequently. Very different for a previously healthy pregnant individual or postpartum person. For this, it's an emergency. It's an emergency because it needs to be addressed immediately because risk of stroke is eminent with those types of high blood pressures.

My experience as maternal fetal medicine specialist and improvement work has been predominantly in that area of helping outpatient care providers, whether they be in the emergency department, whether they be in community health centers that do a lot of primary care, and now with your organizations with helping them understand the difference between the thresholds that we use for the pregnant individual and the non-pregnant individual.

... and includes the steps one should consider in measuring inaccurate blood pressure. But this seems really, really basic. Isn't it really, really basic? Don't all of us clinicians learn to take a blood pressure in nursing school. When become CMA, certified medical assistants, and in medical school, we learned to take a blood pressure. I'll tell you what, it's not that simple. The quality improvement work that we've done in the inpatient setting with what we have is a very experienced nurses when we go through these steps of how to take blood pressure accurately and consistent so that you get a reliable measure is not always implemented.

On the graphic, you'll see that it goes through these steps. It's important when an individual comes into the clinic and you're going to take her blood pressure that you've asked her has she emptied her bladder. A full bladder will change the blood pressure. Has she had any nicotine or caffeine within an hour of having that blood pressure taken? Has she just run up the stairs, rushed to get on time and run up the stairs to get it? She needs to sit for at least five minutes quietly to get a consistent blood pressure.

One should not be talking during a blood pressure measurement. One should be in a posture that's comfortable with feet on the ground. One should not move. The arm should be elevated to the level of the heart. You can see in the image that the arm is supported at the level of the heart. If it's too high, it's going to be off. If it's dangling, you're not going to get the same blood pressure. These elements are real important.

What we're doing in our clinic is we actually have a little cheat card. These are nurses that take blood pressure every single day, but they're on their... We use an automated blood pressure cuff. On that automated blood pressure cuff hangs a tag that lists these elements to remind us. And actually, they can point to the patients and teach patients. If you're taking your blood pressure at home, this is the way to do it. This is exceedingly important to be able to take an

accurate blood pressure, and I encourage you all to challenge yourself to see if this is happening properly in your clinical area.

I will note that on that diagram that shows blood pressure ranges, those blood pressure ranges are for the non-pregnant individual. That's just a good thing to have on reference. Another piece of recognition and prevention is for screening for social and structural drivers of health that might impact clinical recommendations and treatment plans. These social drivers might be contributing to cause of hypertension or they might be contributing to barriers to adherence to a care plan, so very important to assess these things.

I would ask you to reference the RHNTC's addressing Social Determinants of Health and Family Planning Care Meeting package if you feel like you want to dig into this more and improve your proficiency in doing these trainings and the resources available for your clients.

I'd like to also mention that in training of staffs, you want to be screening for hypertension, how hypertension relates to general health and reproductive health, and to the racial disparities of health. Meg touched on a number of these elements in her introduction, but there's a really good course available to you on integrating hypertension prevention and control into family planning services, and there's a link available to you in this slide set as well.

The next R is response. Response is using a standard policy and protocol for the diagnosis and management of hypertension in the outpatient setting. I really like this resource that's available to you on the right-hand side, and it walks you through an algorithm of what to do. If your client is currently undergoing hypertension treatment, you go down one path. If they're not yet in treatment and you recognize a blood pressure that's high, you of course go down another path. It gives you thresholds for what those blood... If they aren't undergoing treatment and the blood pressure is high, over 120 over 80, let's check it again. You can follow this algorithm down the path to next steps and treatment options.

On the right-hand side, of course, are indicators for contraceptive services and blood pressures for reference. But I think for those of you that wanted to become more proficient with recognizing treatment and potentially even beginning... well, deciding when to treat or refer, I think this algorithm on the left-hand side can be... It's exceedingly helpful.

The next R is reporting in quality improvement and systems learning. In quality improvement, measurement is important. You measure what you care about and move things along by comparing how you did three months ago to what you're doing now. Monitoring outcomes and process data related to blood pressure and hypertension is a way to do that. Then, when you can, disaggregate this information by race ethnicity, if possible, due to known disparities in rates of hypertension, but also how disparities of treatment really do exist. We all want to think they don't in our clinic. But when you really take data about what you do for different individuals in your clinic and disaggregate it by race and ethnicity, you might surprise yourself. There's a number of different things that one can do for this particular topic, and I think there'll be more opportunities shared with you in the future.

But a lot of what we've done for the AIM bundles is not as much about outcomes as it is about what we call process measures. Do clinics have in place a protocol like that algorithm that I just showed you? Do you have that in place? Is it a resource that the practitioners rely on and refer to so that they know what to do when and everybody in the group is consistent with the

approach? It goes miles when your nurses, and your prescribing providers, and everyone is on the same page about the path of where to go if someone's identified with an elevated blood pressure and what we do about that.

Another process measure would be do you have written education materials available for individuals who do have an elevated blood pressure? And do you have a process for disseminating those things? These are sort of yes-no things. But if the answer's no now, three months later, if you're in an improvement pattern, three months later you do that assessment again and you look... Is your staff trained to do blood pressure measurements accurately? Can they demonstrate that those things on that checklist are accurate? You might get 70% right one time. You train three months later, you do it again, you might get more like 90%. These sorts of things you can set up for yourself, metrics and goals, to monitor.

The next and important R is respectful, equitable, and supportive care. The full confession, 10 years ago when we first did the hypertension bundle, this was not there, but the AIM initiative has been very deliberate in integrating respectful care into each of the elements of the bundle. But also is calling it out because of its importance as an R of its own, which is providing person-centered, trauma-informed communication and care to support the client in understanding their recommendations and options. Beyond recommendations and options, it's a matter of building trust. It's really meeting the individuals where they are and helping them meet their health goals.

**Meg Sheahan:**

Thank you, Dr. Menard. Dr. Menard just talked through a high level of some really key action steps, evidence-based practices, and it's a lot. But the good news is that you don't need to have committed all of this great information to memory. The information is laid out in this job aid. It's called the High Impact Practices for Outpatient Settings Job Aid. It's designed to help strengthen hypertension services specifically in the outpatient and the sexual and reproductive health setting. It captures everything, all of the evidence-based practices and steps, that Dr. Menard just spoke about in one sort of clean list.

Then on the right-hand side, it provides links to resources that will help you implement each and every step. These practices which are designed to improve maternal and overall health outcomes are organized around the five Rs, organizational readiness, hypertension recognition and prevention, response to hypertension, reporting systems and learning, and providing respectful, equitable, and supportive care.

Now, your agency may not be able to implement every high impact practice. That's normal, totally normal. But you can start with those that work best for your organization. I would also suggest paying special attention and giving special consideration to the starred practices. It might be a little bit hard to see on your slide, but there are two little orange stars on the bottom. Throughout these job aids, there are some evidence-based practices that have little stars by them. These are practices that we think have the potential to be the little hinges that swing the biggest doors.

We'll chat that link in to the chat right now. Click on the link, open the job aid so it's on your desktop for you to check out after this webinar ends. It's also available on rhntc.org, and you can find... If you can't remember the whole name, you can find it and other resources if you

search. We have a search function. And probably the most obvious search term to use is the word hypertension, and it'll pop up.

I also wanted to highlight one really, really helpful resource that you will also find on rhntc.org. If you search the term hypertension, it's going to pop right up. It's the Hypertension Prevention and Control Improvement Toolkit. Now, the RHNTC has a ton, literally hundreds, of resources to support you, and many to support you specifically around hypertension prevention and control. But if I had to recommend just one and only one for hypertension services support, this right here is the one, the Hypertension Prevention and Control Improvement Toolkit.

The reason is because it's designed to support outpatient sexual and reproductive health providers in implementing best practices for hypertension prevention, diagnosis, and control. And it provides this sort of holistic, comprehensive approach. I mean, it walks you through every layer from understanding what the recommendations are in the QFP around hypertension for family planning settings to designing a policy. It even gives you a sample policy for hypertension prevention and control in case you don't have one in place and you can't reinvent the wheel, you don't want to reinvent the wheel. That policy pulls together all of the best practices and recommendations.

It then goes on to action steps for supporting people who don't yet have hypertension, but who may be at risk for it, including a focus on preconception services. Then, it goes on to what the clinical team can use, tools that the clinical team can use to support clients who actually do have a hypertension diagnosis in terms of things like self-monitoring of blood pressure, which is really important for these clients. Then, moving on to strengthening your referral systems and promoting the services that you have around hypertension. So, it's comprehensive. It includes all of the resources that you saw screenshots of on these slides. So if you go to this link, you will find all of that. All right. I'm going to pass it over to Naima if we have any questions.

**Naima Cozier:**

Well, thank you so much, Meg and Dr. Menard. We are excited to get to the Q&A portion of our webinar. We invite folks to go ahead and enter your questions in the chat. While folks are doing that, we actually do have one question that came in. This person is asking about their providers. It says, "Our providers are interested in providing initial hypertension management to clients with hypertension, but they feel a little uncertain about how to start. Do either of you have any tips or advice?"

**Dr. Kathryn Menard:**

You want to start, Meg or...

**Meg Sheahan:**

Sure, sure. I can chime in because this question actually... It kind of resonates with me. I'm a certified nurse midwife. Doing hypertension management really wasn't part of my comfort sphere. I usually just referred for a long time and hoped for the best. In reality, honestly, because I did follow up with these clients, I knew that they weren't going to the referral appointments because they have busy lives and navigating the system is challenging

sometimes. I actually feel pretty strongly about doing hypertension management in-house whenever possible.

So, I do have a couple tips and recommendations just based on my own personal experience. First of all, one thing that I found very helpful, because I didn't really know where to begin, and I actually didn't have the easiest access to a consulting provider who was going to be proficient in this. I worked in a low resource setting. My consulting providers were busy seeing patients every day. They weren't at the end of my phone exactly when I wanted them.

I found the algorithm that Dr. Menard highlighted a few minutes ago really helpful because it laid out the initial steps and also what's not.... When I say initial steps, I mean the initial steps of accurate measurement, accurate diagnosis, and when to advance to intervention, not just medical intervention, but also life... The first step in this is lifestyle change, lifestyle modification, diet, exercise, stress. It provided a very simple pathway to walking with a client through this process.

Then, what wasn't conveyed on the screenshot is that on the flip side of that algorithm of that page, it actually walks a client through, "Well now that you've been diagnosed, what next?" It walks through medical management, including the first line medical medications and how to use them, when to evaluate is this working, is it not, and considerations about how to optimize medical treatment, how to get to the best place to make this medication as effective as possible.

What I did and what I found really helpful was I sat down with my consulting physician, and I talked through this algorithm. I said, "Does this work for our clinic? How does this process work?" We ironed out the wrinkles, and we agreed on the plan and how this algorithm would be used. We looked at the medications that are on the list on the flip side, on the backside of the algorithm, and we said, "Which one of these are our sort of go-to medications?"

This doesn't mean it's going to be right for every clinic or setting, but this is what worked for us. Our plan was that we chose one and two go-to medications and said, "This is our first step." Then when I prescribed those medications, we had a plan for follow-up to make sure they were working and a plan for follow-up to basically move the client into my consulting physician's care because I wasn't going to be... I was a certified nurse midwife in a family planning setting. Our decision was that I wasn't going to be the one providing ongoing hypertension follow-up and management.

But that was the first step, and we found that that process really tightened up the referral process. Because in essence, what was also being created there was a referral. Also, just being prescribed the medication when that's what it came to, it sends a very strong message to the client that the client took seriously like, "Oh wow. This is something serious. I do need to go to this follow-up appointment. I'm at that place." And it enhanced our follow-up rate.

That's kind of our story and how we did it. Like I said, that's not going to work for everybody, but it really helped work for us. I'd be curious, Dr. Menard, to hear if you have any thoughts that you'd like to add.

**Dr. Kathryn Menard:**

Sure. I will add some thoughts. I think that when you... Many of you are taking care of young individuals. And when young individuals have quite high blood pressures, I caution us not to

default to bread and butter hypertension. In a young person, if their blood pressure is quite high, there might be an underlying etiology that needs to be addressed. If you see a young person with a particularly high blood pressure, I think that keep in mind that that might require more extensive workup than a blood pressure cup for a simple lab test. I'll just put that out there.

For moderately high blood pressures, I think it's a good idea to look at the urine, make sure there's no protein in the urine, maybe check a creatinine test, make sure the kidney function at least by that and is in the normal range.

I always like to help individuals understand what behavior modifications can come into play. We know that healthy diet is helpful, healthy weight is helpful. Some women will be moderately overweight and find the path to losing some of that weight and the blood pressure issue is resolve. I think that's really important to educate your patients about that.

Regular exercise, even if it's just 30 minutes, four or five times a week, can make a difference. Not smoking and getting consistent sleep, all of these things can improve blood pressure. It's great to start there if you have someone who's sort of on the edge and then move to medications as...

I honestly don't have a particular favorite start myself. In pregnancy, there's two we use. We use Procardia or the calcium channel blocker, and we use labetalol, or an alpha blocker, and there's a lot of other choices, ACE inhibitors, others and diuretics that are more appropriate for the non-pregnant state. But I think Meg's shown you a nice resource for sorting through that. So, making sure the workup has been done if indicated, and behavioral modifications where that can help, and then go to the medication when you need that.

I also am a huge fan of home blood pressure monitoring. Someone's in the office. They may come into the office, and you'll be observing even repeated higher blood pressures and it's not real. There's a real thing called white coat hypertension that when they're relaxed in their own home setting, the blood pressure's not high. Gosh, I am a real fan of teaching women to take blood pressure. Because you teach the women, you teach the whole family.

If they can get access to a blood pressure monitor, there's some nice, not too expensive, home blood pressure monitors. They're available. If they can bring that into the clinic and then have your team validate that the monitor that they have is accurate, that's real helpful. You don't want them to be done at home randomly with a piece of equipment that's not working well. But if you can validate that they're measuring their blood pressure accurately, both with those steps of how to take the blood pressure properly, posture, like we... feet on the ground, no nicotine or smoking ahead of time, sit quietly for five minutes before you do it, no talking or moving, elevate the arm, rest the arm at heart level, these things. Teach them to do that in that manner so that they're getting consistent things and log it and bring that to a provider view so you can see what's happening outside the office as well before making decisions about medical treatment.

**Naima Cozier:**

Thank you, Dr. Menard and Meg. We have two additional questions. The first, Jessica asks, "Where can I find a resource for the blood pressure thresholds for pregnant and postpartum clients versus the standards that are used for non-pregnant people?"

**Dr. Kathryn Menard:**

I don't have at my fingertips a link to put into the chat. But if you Google AIM hypertension bundle, there are resources there that have the thresholds for pregnancy. I'll tell you, just put in your head, top number 160, bottom number 110, that's the threshold that becomes urgent for treatment in a pregnant or a postpartum individual. But there's resources on that AIM website that are specific to pregnancy where we have this chart that has red, yellow, green, the red being urgent, green being okay, yellow being caution. That's available on that website.

**Naima Cozier:**

Thank you, Dr. Menard. Meg, did you have anything to add or can I go to our next question?

**Meg Sheahan:**

I think we can move on.

**Naima Cozier:**

Amber asks, "Are there any digital resources or apps that you recommend for tracking blood pressure?"

**Dr. Kathryn Menard:**

I don't have a favorite that you don't have to pay a lot of money for, so I'm not going to promote a product in particular. But I think there are apps out there. We're just not using those in our practice. They don't integrate it with our EHR. Without having that, we haven't chosen to use that in our practice. I'm sorry I don't have a good answer for you.

**Meg Sheahan:**

I don't have a favorite. I know that a good number of self home blood pressure cuffs will come with... Especially the more fancy ones, maybe more expensive ones, they come with a link to an app. They come with a link to a digital... You can set up a digital tracking system. Then in your phone, if you have the app store or whatever you use to find apps, if you simply type in blood pressure log or blood pressure tracker, many come up.

**Dr. Kathryn Menard:**

I'll also mention that there's a very nice resource with patient education materials and provider resources that the Preeclampsia Foundation supports. They've got a program called the Cuff Kit. If you have individuals where their insurance doesn't cover getting a cuff or they can't afford 30, $40 at the pharmacy, they can get a really good quality cuff, but not everybody can afford that. It's that or dinner sometimes for some people. The Preeclampsia Foundation has a program where you're actually able to get cuffs that you can... If your clientele needs those at no charge, they're available through the Preeclampsia Foundation.

**Naima Cozier:**

Thank you again, Dr. Menard and Meg. I just want to acknowledge the chat folks are sharing some additional resources. Please check those out. With that, I do not see any additional questions, so we're going to keep on moving with our webinar.

As I mentioned in the beginning, we wanted to come back and see how you were feeling in terms of your confidence. Has it changed now that both of our stellar presenters have really shared some really important resources and information on hypertension? We are going to relaunch a poll. Again, our scale of confidence is one not confident at all, five very confident in your ability to, again, describe the impact of hypertension on health across the lifespan and maternal health, as well as being able to describe high impact practices that sexual and reproductive health providers can implement to strengthen hypertension prevention, recognition, and control for improved outcomes.

We really appreciate your participation in the poll again. This is just super helpful for us to see where folks are from the beginning of where confidence was in terms of being able to do what we set out to achieve by the end of today's webinar and where you are afterwards.

If we can go ahead and share those results, it looks like it's slowed down a little bit. Folks have definitely shifted. At the beginning of the webinar, about 44% of us were at a three in terms of confidence, and we have shifted to the majority being a four and then 35% being at a five. We love, love to see that shift for our objectives.

Next, I'd like to invite you to share an action that you want to take as a result of what you learned today. What I'd love for you to do is, in the chat, if you could please enter one action item you will take, one action or anything you feel like sharing as a result of this webinar that you are ready to go ahead and do differently or take on a new action that you weren't previously. We'd love for you to share that in the chat.

Again, this is something that, one, we hope it helps you just to think about, well, not just the knowledge that you gained as a result of the webinar, but how you're able and what maybe some of your plans are to apply what you learned today. It looks like we already have some folks responded. That includes encouraging all nurses to review the best practice on taking blood pressure.

Melissa writes that they love the idea of blood pressure cards on the auto monitors. Courtney says, unsure, but you don't have to have it all figured out now. Take some time. Let this marinate. After you review the resources, as you're saying, Courtney, you really appreciated those resources, you may identify some action items. Sandra says sharing the information with clinicians and nurses. Vicky says, "Make sure I take blood pressure after PT tests, before depo shots." Wonderful. Please continue to add those in the chat. We won't have time to review them all, but we'd love to hear what action you'll take as a result of the information and the resources you received today.

Again, the recording, the slides, the transcript will all be posted on rhntc.org. I do want to acknowledge the version of the slides that you received pre-webinar did not include a list of the resources. What's available on rhntc.org will include a slide with all the hyperlinks to all the resources. So, don't have to worry. You will get those up in terms of what's available on the website.

With that, we just like to really thank you for joining us today. I hope you'll join me in thanking our wonderful speakers and presenters. As a reminder, again, all of the materials will be available in the next couple of days. Give us a little bit of time on rhntc.org.

And we would like to encourage that you please, please complete the evaluation. Again, we really value your feedback. It does inform future sessions. And in order to obtain the certificate of completion, as I mentioned in the beginning, you must be logged into rhntc.org. If you were seeking the CNEs, you must complete the evaluation to receive that certificate. Just some other motivators to get that evaluation in.

Please do stay in touch. There's a number of different ways. You can subscribe to our monthly e-news by visiting rhntc.org. Contact us through the website. Sign up for an account on our website. And please do follow us on LinkedIn. With that, we want to thank you again for joining the webinar, and this concludes our session today. Have a wonderful day, everyone.