The Joint Commission

Award Ceremony Transcript
2023 Bernard J. Tyson National Award for Excellence in Pursuit of Health Care Equity
Date: November 27, 2023

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Welcome, everyone, and thank you for joining us for this live award ceremony for the 2023 Bernard J. Tyson National Award for Excellence in Pursuit of Health Care Equity. Next slide please.

Allow me to introduce Joint Commission and Kaiser Permanente leaders that will be speaking today, including Dr. Jonathan Perlin, President and Chief Executive Officer, The Joint Commission, Dr. David Baker, Executive Vice President, Health Care Quality Evaluation and Improvement at The Joint Commission, Dr. Ronald Copeland, Senior Vice President of National Diversity and Inclusion Strategy and Policy and Chief Equity, Inclusion and Diversity Officer at Kaiser Permanente. And Dr. Mark Smith, Clinical Professor of Medicine, University of California, San Francisco, and the Chair of the Tyson Award Review Panel. We are now going to present a short video message from the Joint Commission's President and CEO, Jonathan Perlin.

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On behalf of the Joint Commission, we are pleased to co-sponsor the third annual Bernard J. Tyson National Award for Excellence in Pursuit of Health Care Equity with Kaiser Permanente. At The Joint Commission, our health agenda includes four priority areas in which we are providing a roadmap for health care organizations. This includes health equity, environmental sustainability, learning and performance integration. H-e-l-p. Today, I'd like to highlight the critical role of health equity in this agenda.

Over the last several years, The Joint Commission has taken significant steps to support health care organizations in providing safer, higher quality, more equitable health care. We believe that reducing health care disparities is not only our moral and ethical duty, but it's also a patient safety and quality imperative. Equity is foundational for safe, effective, patient centered, culturally sensitive, and compassionate health care. At the start of this year, we implemented new standards to reduce health care disparities. To further elevate the importance of these requirements, they became a National Patient Safety Goal on July 1. We also launched our Health Care Equity Certification Program, which recognizes and distinguishes health care organizations embedding equity into all aspects of their care operations and governance.

The Tyson Award recognizes a health care organization that is leading the field in meaningfully addressing health care disparities. The award also provides an annual platform to share best practices, strategies, and tools used by organizations that apply to the awards program. Ultimately, by sharing successful strategies, we hope to inspire other organizations to engage in similar health care equity initiatives. This year we received many outstanding applications from these applications. The review panel selected the University of Chicago

Medicine as the 2023 awardee for their exceptional work. Congratulations, and many thanks to the University of Chicago Medicine Team.

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Good afternoon. I would like to welcome and introduce the recipients of the award who are joining us today from the University of Chicago Medicine. Brenda Battle, Senior Vice President, Community Health Transformation and Chief Equity Officer. Dr. Ernst Lengyel, Arthur L. and Lee G. Herbst, Professor and Chairman, Department of Obstetrics and Gynecology. Dr. Sarosh Rana, Professor of Obstetrics and Gynecology, Section Chief, Maternal Fetal Medicine and Chief Obstetrical Transformation Officer. And Dr. Stephen Weber, Executive Vice President, Chief Medical Officer. It's well established that the quality of health care and health outcomes often varies by race, ethnicity, socioeconomic status, gender, sexual orientation, immigration status, age, geography, and more. Not only is it unjust, but it's a patient safety issue.

In 2020, The Joint Commission set a strategic goal to facilitate nationwide improvement in health care equity and identify best practices to assist health organizations in reducing health care disparities. We identified Bernard J. Tyson, the late chair and CEO of Kaiser Permanente, as an inspiring figure and the ideal namesake of this initiative. Subsequently, we collaborated with Kaiser Permanente to create this award program. I'll turn things over now to Dr. Copeland of Kaiser Permanente to say a few words about Bernard's legacy and Kaiser Permanente's work in this space.

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Thank you Dr. Baker, it's my pleasure to be here today. Bernard's career with Kaiser Permanente spanned more than 30 years, he was an exceptional leader and his untimely passing profoundly affected everyone at Kaiser Permanente as well as the broader health care community. His passion for addressing inequities in the United States health care system was widely known. He worked tirelessly to ensure that all Americans have access to high quality, affordable health care, regardless of their zip code or background.

Kaiser Permanente continues his commitment to delivering health care equitably and eliminating health disparities. Equity is at the heart of our mission, and we will pursue this vision until everyone has the opportunity to lead a healthy life. This award, named in his honor, provides a platform to celebrate other health care organizations who are demonstrating that they are ready to join us in our efforts. The rigorous application and selection process ensures that the Tyson awardees are affecting change in ways that are measurable, sustainable over time. To tell you a little bit more about the external award panel's evaluation of the applications. We are delighted to have Dr. Smith here to represent the panel as its chair, Dr. Smith.

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Thank you, Dr. Copeland. Our diverse panel of national health care equity experts was charged with reviewing the submitted applications and selecting the award recipient. I want to take a moment to thank each of them for their expertise and their support. It was a tough

job selecting one recipient from a pool of many excellent applicants. Overall, the panel sought initiatives with a well-defined population, with data to show disparate outcomes and a specific intent to focus efforts to improve outcomes for that population. The panel assessed how the organizations targeted their specific interventions and solutions to the identified barriers. We also sought applications that thoughtfully explained how the interventions were implemented. Applications also needed to include data to show that the strategies indeed worked and improved the target populations outcomes in real life. Finally, the panel also assessed whether the initiative included sustainment plans and provided clear lessons learned or strategies that could be used to replicate those efforts and be used by others in concept.

The panel found all those elements within the University of Chicago Medicine's application for its initiative, Systematic Treatment and Management of Postpartum Hypertension. We were impressed by how holistically the disparity was approached, including the implementation of a comprehensive multi-level bundle of interventions, engagement across departments, convenient ways patients could access information and care, and patient education and empowerment. The use of telehealth and remote patient monitoring, in addition to the clinical interventions, resulted in improvement across all populations, but most significantly decreased the disparity for Black patients. The panel perceived that postpartum hypertension is a very specific and actionable clinical area, and the University of Chicago Medicine team addressed that disparity in a way that could be replicable, like a roadmap for other organizations to implement similar interventions to reduce disparities for their postpartum hypertensive patients. And with that brief introduction to the team's work, I'll now invite the representatives from the University of Chicago Medicine to describe their initiative and their impressive outcomes.

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So, thank you very much. I would like first to thank The Joint Commission as well as Kaiser Permanente for this extremely prestigious award. And I'm really hopeful that people will perhaps, you know, obviously carry on. And I'm very happy to take questions. And on my email after we do this presentation.

So, very briefly we are going to talk about this program, which we are calling STAMPP Hypertension, which essentially stands for Systematic Treatment and Management of Postpartum Hypertension. So essentially this should not be a surprise to people. But just for non obstetricians, and for in general, the context is that maternal mortality in the United States is on the rise. And one of the things metrics that we can measure maternal mortality is called PAMR. So, it's pregnancy related maternal mortality ratio. And essentially it is the number of maternal deaths that are occurring every 100,000 live births. And when you look at this graph, what it shows is that in the US it's about less than 20, it's about 18. But there's just very clear that people in Illinois have a much higher rates of maternal mortality. But if you look at the White and the Black, this is very, very high in women who are Black and living in Chicago and in Illinois.

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So, this was a graph that was published by CDC a couple of years ago. And when they were talking about the maternal deaths in women, they divided that up between deaths that are occurring during pregnancy and postpartum. And as you can see, a large majority of deaths are actually occurring postpartum. And even in the postpartum space, about 50% of those were occurring at the time of delivery and one week postpartum. Now, when you look at this and as a physician and as a leader, you would look at it and say, well, where do I really intervene to, you know, improve this metric? And hypertension and cardiovascular disease is a major contributor to maternal mortality. So, you can think like perhaps we could improve care around the time of delivery and immediately following delivery. So, for hypertension context, a week or two after delivery was seemed like a very good period to intervene.

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So now that we're talking about, and thanks for bringing this up already, is there are several factors that contribute to racial disparities in OB outcomes, and especially as it pertains to hypertensive disorders of pregnancy. So, this was a recent review article that we wrote. And obviously it's very multifactorial. So, it's hard to hard to actually address with just one intervention. And I think that's that's the one of the key messages is that we need to look at all these different aspects and see what all we can actually improve to ultimately reduce this disparity.

So, what are some of these leading factors is again, there is data around. Most of this is there is not only there's lack of access to care among Black, pregnant and postpartum people, but there's also lack of access to quality care. So, these people are receiving care at subpar institutions. There is some data, and people have kind of debated this, whether perhaps people are coming into their pregnancy with increased risk factors. So, you have higher prevalence of uncontrolled hypertension, diabetes, obesity, which will which will increase your risk to have complications, social issues, housing insecurity, gun violence is very prevalent where we are.

And then there are all these factors that perhaps lie within the health care institutions. So, there is data around health care system as well as provider implicit bias. What we have researched, and also found just by patient interviews, that there is really a lack of awareness around hypertensive disorders of pregnancy, not just in the patients, but also in health care providers. And then we know this, that a lot of times the patients are unheard. Again, there's also data that Black women report that more, that they are not heard, more frequently during their pregnancy and postpartum. And then especially as it pertains to postpartum, either the person will not have a plan, or if they have a plan, they will be kind of ineffective.

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So, a lot of obviously factors. And that's why I feel like sometimes I say this with all sincerity, that I feel like the health care system is almost set up to fail our patients who need it the most. So, what can you do? Obviously you can do many things, but one of the things that we thought of is, and again from the same article, we created these pillars that you can tangibly, perhaps intervene at some of these things. So, we thought there would be could be like four

tangible things. So, one is Hypertension Education and Awareness. So, making people aware either the providers or the patients about the perils of of of hypertensive disorders of pregnancy during pregnancy postpartum. Reduction of structural racism. I'm not going to talk about that, but that's a strategy of the University of Chicago does a very good job globally training the providers as well as well as physicians. Then we thought that perhaps creating not just like one thing, but creating a program bundle.

So, bundle approaches are when you take several interventions and apply it all together. You [know] the negative of a bundle is you'll never know what single intervention helped. But then bundle approaches are good because even if one intervention in part of the bundle is not very effective, as a as a whole thing, the bundle is probably has a much higher chance of being successful.

And then we thought perhaps including some of these innovative solutions which are actually not that innovative. They're very well used in outside of pregnancy and postpartum, such as telehealth visits and even home visits could potentially be another intervention that we can combine into one program.

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So, before we did this, we kind of this was in 2018 and I studied hypertension in the clinical context of preeclampsia and hypertension. So, what we sought out was we tried to look at what are the problems that are at the level of our hospital or at the level of the patient as it pertains to hypertensive disorders of pregnancy. And we, you obviously won't be surprised, but we found several problems. So, one of the things we found was at the time of admission and discharge. So, the people are coming in, patients are coming in, and they get diagnosed with high blood pressure and pregnancy, and they're being discharged home or they're being admitted for labor and delivery. We found there was a really a general lack of knowledge among patients. So, patients themselves did not know that they had this hypertensive disorder. And now they are at risk, almost like for the rest of their lives. Actually, there's literature that they are at risk.

We had no organized effort to educate our patients. So, it will depend if I'm rounding, I'll educate the patients more. If my partner is rounding, they forget to educate the patients. We were not giving them discharge instructions universally pertaining to specifically about preeclampsia.

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ACOG in about 2018, 2019 came out and says, well, anybody who has high blood pressure in pregnancy should come back and have a postpartum hypertension visit in about 7 to 10 days after their delivery. But really, in our hospital, we had no dedicated postpartum clinic. So, just to tell the patient to go make an appointment in 7 to 10 days was really was just like not a strategy. So, we had no dedicated postpartum clinics for easy access to patients. And then what we found was that the patient is discharged now, and she wants to come back to the hospital. They had to go through the ED. Now we have a level one trauma. So, our ED is very, very busy. We went down and you know, we talked to the ED and we did some Kaizen

events. And what we found was that in the ED, they had difficulty in identifying postpartum patients. So, there was no straightforward path where a patient could approach the pivot nurse or some nurse and say, hey, you know, I'm postpartum, so I need care immediately. They actually had very poor knowledge about postpartum hypertension. They did not recognize that severe postpartum hypertension needs to be treated quickly. They didn't even recognize this, immediate postpartum is kind of an OB thing and not really a medicine thing. So, they would call medicine doctors. They would call cardiology to do a consult in the ED. And all of that led to delayed transfer to labor and delivery as delayed as some of my patients will say that they would have to sit in an ED for like nine hours, eight hours, once they're trying to get back into the hospital.

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And then if she was fortunate enough and she got admitted to the hospital, we really had no standardized management for readmissions. So, the patients could be admitted in medicine floor. They could be admitted in, you know, neurology, cardiology based on their symptoms.

So, what did we do? So, like I said, the one thing we did was we called it something. So, we called it STAMPP HTN (Hypertension). A little bit of a catchy name. And then we created a team. And again, it was a lot of effort to begin with, but we had really great support. So, I'm just putting some names here early on when started you can see a lot of fellows, a lot of my clinical fellows, my medical students, but we had a lot of support from our nursing. We had very early on support from our administration. Obviously, Dr. Lengyel is here, but also some of our administrators from the family birth center, from our outpatient clinics to kind of really took a took a note of all the stakeholders that could potentially interact or be responsible for this patient's care. And we kind of engaged them really, really early.

So obviously we were committed to quality improvement. So that was kind of a big thing. The first one of the... kind of first concepts that came into light was that we are doing this under a quality improvement project on labor and delivery. We're doing this under a quality improvement project, but obviously that's a very diffuse goal. So, we came up with very specific goals that we wanted to achieve through this program. So, the goal was simple.

We wanted to improve the knowledge among providers and patients about hypertensive disorders of pregnancy. We wanted to appropriately and timely treat blood pressures, whether it's during pregnancy, which obviously a different protocol we're not going to talk about, but especially around the time of delivery, but especially around postpartum period, we definitely wanted to improve the rates of postpartum follow up. So again, may not be common knowledge, but in US the average rates of postpartum follow up are close to 40 to 50%. And then if you add if you're African American Black, your rates of follow up can be as low as 30%. So, we just wanted to improve those rates of postpartum follow up.

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Obviously we wanted to reduce the hypertension related complications. So, hypertension cardiovascular disease is one of the common reasons for readmissions heart failure and long term morbidity. We also wanted to manage these readmissions really appropriately. So

again, I'm pointing all these out because we did go out and kind of, you know, act against each of these specific goals. Obviously, our long-term goal is to improve long term outcomes for these patients and ultimately follow with the right kind of doctors, which really is a cardiologist or a PCP.

So what did we do? We did a lot of clinician buy in and put a lot of procedures in place. And I'm going to point them here. So, one of the first things we did was we created this video. It's about five minutes 52 second video. And it's very simple. Let's talk about the perils of pre-eclampsia. It has me, several of the nurses, my medical students... and every patient who gets admitted to our family birth center who has any kind of hypertensive disorder pregnancy has to watch the video before she can even switch on the TV. So that was a little bit of a you know, it actually caught on very, very easily. The nurses will tell the patients that have high blood pressure, 'You have to watch this video.' And a lot of times when I round now the patients say, 'oh we saw you in that video.' So, I think that was a very good strategy.

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Then we were very heavy in terms of involving all our nurses at the family birth center. One of the things we did, we started routinely giving out these tear pad sheets. So, there is a misconception in the world of OB that delivery treats pre-eclampsia. In fact, if you go back and read some literature and books, it says that the cure for pre-eclampsia is the delivery. That's a wrong statement. So, we obviously are trying to rewrite that in the textbooks. But the general concept that somehow you get delivered and your pre-eclampsia is going to miraculously disappear is wrong. So, we went out and specifically bought out. And this is from the Preeclampsia Foundation, these tear pad sheets, which highlights that you are at risk after your baby is born. So, specifically talking about postpartum period, we started giving our patients written instructions. So, we created phrases in our EPIC which we have to put pre-eclampsia and then kind of, you know, has this tear pad sheet in it embedded, but also talks about specific instructions about pre-eclampsia.

We bought these bracelets, which are very cheap, but we made it specific too, we engraved it with postpartum pre-eclampsia.

And then one of the things that we found early on was when talking to patients, they would say that insurance does not cover the blood pressure cuffs. And we found that patients found it really difficult to go out and find a blood pressure cuff. You know, she has a one-day old neonate in her house. So, we literally went and bought hundreds of blood pressure cuffs and started giving out blood pressure cuffs and monitors to our patients for free.

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And then we created this pre-eclampsia discharge checklist, which kind of goes along with a little bag that she gets very simple. It talks about symptoms of pre-eclampsia. The other barrier we noticed was that patients again, it's a large institution. So, we don't we have this call center. So, patients found it really difficult, especially transfer patients who are coming from outside or patients who don't seek care here. They found it really difficult to navigate the system to make a postpartum appointment within seven days of their discharge.

Appointments are like booked out for two months, three months. So, what we did was one of the, I think if you ask me, three key interventions, this was one of the key interventions is to make that follow up appointment. So, we went to, and obviously collaborated with, our call center. And we found specific people who now we send the list, and they make the appointment before the patient goes home. So, we write that time of our appointment. We circle it. We tell her, 'you know, this is your appointment when you're coming back.' And then we simply give them instructions of how to check your blood pressure on the back page.... They have it, and they can write their blood pressures on it. So, we give this routinely to everybody.

And then we created this annual competency. So, a line of educating all the providers. So, all OB providers, whether you're an Obstetrician, whether you are a, you know, physician, residents, nurses, everybody who practices OB at our hospital has to take this annual competency. So, we created competency for OB providers, but also for the ED providers in the main ED and in the common ED.

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And then we went out and created protocols for pretty much all management of blood pressure. So, management of postpartum hypertension. And again, a lot of this data is published in an open access. So, we created boxes of the blood pressure. Is this what do you do? So, it's not dependent on providers. It's just like automatically somebody treats them. We created several workflows for readmissions. And essentially the bottom line there was all patients who get readmitted needs to be admitted to MFM. And then we call a cardiologist, if the patient is in heart failure. We call a neurologist if she has a headache.

We also worked extensively with our ED folks, and we created quick transition of patients out of the ED. In fact, now our protocol dictates all postpartum patients can come directly to labor and delivery. And then like I said, we created this specialized postpartum hypertension clinic for easy access every day of the week. And essentially they are run by the Physician Assistants under the supervision of MFM Physicians.

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So quick. This is a patient journey that a patient will typically go through. So, at the time of delivery, like I said, she watches the video. We talked a little bit about the, you know, the how blood pressures are important, mostly occurring at the time of discharge. We have these inpatient management protocols. We ultimately ended up hiring. And thanks to Dr. Lengyel, a whole nurse, 1.0 of a nurse educator, whose primary job was to run this program along with me on the mother-baby floor. So, she'll go every day, she'll educate the nurses. And now, obviously, we have several champion nurses who are doing it, trained by my, by my nurse, Colleen.

We started giving written instructions. We gave them the written log. We gave them the blood pressure cuff. We gave them this wrist bracelet. And then we scheduled that postpartum follow up appointment. So, what's happening at the time of this appointment? Well, that happens about 7 to 10 days after discharge. At that time, we talked to them about

what medications you're taking, what blood pressures you have, and then schedule any subsequent appointments before six weeks, if that needs to happen. But mostly talking to them about long term cardiovascular risk. And then, they, all my Pas, are following these very standard hypertension management protocols that are created for outpatient management of blood pressures in the postpartum period, along with a lot of input from our cardiologists.

And then obviously, if nothing happens, she comes back for her six-week appointment. At that time, we kind of hand it over. We tell her how important it is for her to follow with cardiology and PCP, but in the meantime, if she needs to be readmitted, we have readmission protocols and any time in the postpartum period, if anybody has severe hypertension, they go directly to labor and delivery because we have protocols for management of severe hypertension.

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So, what did it do? Obviously what it did was this led to significant reduction in postpartum blood pressures and improvement in postpartum follow up. So essentially this was the first data that we published. This was published in Green Journal. And we looked at about a thousand patients from the from the cohort of women who were enrolled in this program. So, as you can see here, the majority of our women are young. So median age was 28. Majority of them are nulliparous 52%. They have a higher BMI and 65% of patients are Medicaid. So, those are the very identified risk factors that have been identified traditionally for people who have poor adherence and people who are not going to follow up, but they are at high risk for adverse outcomes.

The other thing that we noted was that a large majority of patients who have hypertensive disorders of pregnancy are actually African American Black, about 80%. And then again, a large majority of these patients had some sort of a new onset diagnosis. So, they had either pre-eclampsia or gestational hypertension. Again, there's data that patients who have chronic hypertension, for example hypertension outside of pregnancy, have a much higher rates of following up postpartum because they kind of know the importance of hypertension. But these young moms, they come in, they have preeclampsia. You know, they're they will be one who are at high risk because they just got that diagnosis quickly. And they are they are they will perhaps not follow up.

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So, this is the graph that we created. As you can see, in the bottom, those are the different time points. So, September to December 2018 was when we had no protocols in place. STAMPP did not exist. It took us about nine months to put all these different things: education, all these flyers, pamphlets in place. So, by September 2019, STAMPP was actually in place.

So, we took kind of October to November 2019 will be the epoch when everything is happening. And as you can see here, all these different lines, they represent different time points. I'm going to show them to you, but they are all kind of pointing downwards, i.e. the

blood pressure was going low. So, these are the patient's blood pressures. Hypertension more than 140/90 within 24 hours postpartum. Because you can see that dropped from 80% to 46%. Rates of hypertension at the first postpartum hypertension visit dropped from 40% to 18%. Rates of severe hypertension prior to discharge dropped from 32 to 7%. And then even at the six-week visit, the rates of hypertension dropped from 25 to 14%.

So essentially, we didn't really discover a new drug or anything. We just gave people easily accessible protocols to manage hypertension. In terms of follow up. So, this was very very nice to know. So, you're a little bit of a busy slide. But again, the same four epochs on the x axis. On the y axis is proportion of patients who are coming for their postpartum hypertension visit. Now as you can see here there are three different colors. So, let's focus on the middle color. So that's an average. So, on average we have 33% postpartum hypertension follow up. Before we started we went to 59.3. So, we almost doubled our rates of postpartum hypertension [follow-up]. So, then obviously that looked good.

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But then I was in a meeting, and somebody said, 'Dr. Rana, you should really look at how was your program in different patient populations. Like how was Black doing compared to White.' So, we divided them up. So, the dark bars are the Black patients. As you can see, their rates of follow up were 30%. They went to 54.9. So significantly improved. And the White people were 53 and they went up to 76. So obviously when you look at this, you can say, 'oh wow, we did a great job.' But not really, because if you look at the disparity between the Black and White people, they stayed the same. We started at about 23%, so 53 versus 30, and we ended at about 23%, 76% to 54. So, obviously what we're talking about is, here is equality versus equity.

So, we wanted to move a little bit towards we started thinking, 'what can we do to make it a little bit more equitable', rather than just like doing the same thing for everyone. Then what happened is Covid came. So, one of the things that, I was a Section Chief for MFM, and one of the things that I was told, and we kind of started strategizing to think about what kind of OB or postpartum appointments we can change from in-person visits. Because Covid was there, we could not see patients in person.

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So, we felt really comfortable because all our patients had a blood pressure cuff. We felt really comfortable that we could actually see these patients, not really physically see them, but just do a telehealth visit. So, University of Chicago created this fantastic program. They started. It was all in EPIC. You can actually schedule the appointments through telehealth. You can talk to these patients by either video or phone. So, we said, 'fine, we're just going to convert our postpartum hypertension visits into telehealth visits.' So, essentially what we did was we these blue bars in the bottom are the months that are going on from baseline was when we had nothing. March of 2020 that those blue bars are showing the proportion of postpartum hypertension visits, which were converted from in-person visits to telehealth visits.

So, as you can see, by March 15th of 2020, all our postpartum hypertension visits were being done by telehealth. And here we found these amazing results. So, this is baseline. We were, black line represents the Black patients. And the red line is the non-Black patients. As you can see baseline we were 30% 55% - a lot of disparity with everything that had done. With STAMPP, but trying to call all these patients back in, it was up at 48 and 73, so obviously good, but not great. And then with telehealth, we just totally eliminated disparity. Everybody went up, so White people went up from 73 to 76, and African-American Black women went up from 48 to 76.3. And essentially this disparity gap went from like 23% to 0.4%.

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And then we took another step in about 2021. We were actually approached by the University of Chicago IT department that they are trying to start a remote patient monitoring program for some subset of populations. So, they wanted to do, I think, a stroke program. They wanted to include post-cardiac, you know, transplant and all that program. And they approached us and said, 'would you be interested in doing remote patient monitoring because you already have a very robust, you know, kind of program for follow up?' So, we said yes. So, we collaborated with the Department of Digital Health. And Brianna, early on it was Brady and Graeme. But Brianna has been phenomenal in terms of helping us.

And then we got connected to this vendor which is called Health Recovery Solutions. So HRS is actually a company that has remote patient monitoring is obviously not in the postpartum space, but they do remote patient monitoring for non-pregnant people. So, obviously since they had never done any postpartum, we had to create a lot of protocols and escalation and all that for HRS. Which has been really a great experience for, for all of us involved.

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So, then we went out and we created these little posters, which essentially says postpartum health and remote patient monitoring easy ways. We put some of our pictures so that patients can identify us when we are doing rounds. And essentially this is a pamphlet that the patient gets easy ways to to enroll yourself in the program. Essentially, it's very simple. We again identify these patients on the postpartum floor. They get them. Now they're getting a blood pressure monitor which is Bluetooth enabled. So that can directly transmit all that information directly into EPIC. We also have the patients download an app from the HRS. It's an HRS app. And essentially the app gives them these prompts if they don't check their blood pressures, but also has a survey for their symptoms. Everything is linked through EPIC.

We kept all the other components of stamp hypertension program education, escalation, everything the same. And essentially we enroll every single person who gets delivered at the University of Chicago with any kind of hypertensive disorder pregnancy. So, this includes everybody. Doesn't really matter if you're a private doctor, if you're a referred patient, if you have if you're coming as a transfer transport, if you have your own OB here, it's an outpatient. Everybody's six weeks blood pressure is the responsibility of our program.

And for the RPM we started enrolling in July of 2021. So essentially this is kind of an overview of a workflow that we are currently using for the remote patient monitoring. So essentially the patient goes home at the time when she's being discharged. My team goes and enrolls her into the program, essentially gives them the blood pressure cuff, helps them download the app, and then we actually take one blood pressure while she's still there, so that she can see how the blood pressure goes through into the into the EPIC. And then so she checks at home, she's checking her vitals. We tell them to check 1 to 2 times a day, and then she gets a daily survey of any of those symptoms that she has to check off. You know, do you have a headache? Do you have shortness of breath, chest pain, all those things, all this information is directly being sent to EPIC.

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Now, the beauty about the RPM is that all of this data is continuously 24/7 monitored by telehealth nurses. So, any of the escalations that we had to work on blood pressure escalation, symptom escalation, then the nurse will then escalate it to the UCM provider. So, I'm on call. I'll get this phone call and say your patient logged in severe hypertension. Or your patient logged in headache and then call the patient again. The beauty of having RPM is all her blood pressures are already in the EPIC. Every communication that anybody had with the patient is in the EPIC. So, I can quickly look up her chart and see, okay, what's going on and treat her appropriately.

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So, my last slide of the data. So, what this is kind of what I presented today. We started out here when nothing was happening. This was our STAMPP program, the original version. When we did not do telehealth with telehealth we saw amazing results in terms of not only improvement in follow up, but also reduction in disparity. And this is where we are now with the RPM program. We are 81% in in Black and 88% in White people. And I know there's a little gap, but that's not statistically significant. And we can talk about what we can do to reduce that gap further.

So essentially, what we showed here is that the STAMPP RPM program led to an overall improvement in the rates of postpartum follow up, from about 30% to 81.3% among Black women and eliminated disparity. And I'm not going to show you the blood pressure data, but we have similar reduction of blood pressures is actually in fact, if anything, it's better. And we can check so many more blood pressures through the RPM.

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Just one quick slide about how the patients talking about this. So, we have a survey in the through the portal. The patient gets three surveys, one at the time of enrollment and one at three weeks, one at six weeks. Just asking her about 'what does she feel about the program.' So this was results of about 306 patients. So very, very positive. So, 86% of the patients said they are able to improve their blood pressure. Since they started using RPM, large majority are saying they are likely to attend their postpartum hypertension visits. They're saying that definitely are somewhat likely to recommend this program to other

moms. And my favorite is that they somehow they are more aware of their own health. I mean, I've had so many patients tell me that they're so happy and they just feel like, ‘oh my God, there's so much being done for them.’ So, they themselves feel like they should be a little bit, at least more responsible, and they are more kind of empowered to, to take care of their own health.

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So, just a little plug here for all the different things we've done with this program. So, way back in 2019, we submitted this to the ILPQC, which is the Illinois Perinatal Quality Collaborative. They gave us an award for Excellence. HHS has been amazing. So, they have this Hypertension Innovator Award. So, we got phase one phase 2. In 2022 the Magnet, The ANCC came by for credentialing. So, they took our story and called it a Magnet exemplar. It is a largely based initiative based on our nursing. I got the Distinguished Leader in Program Innovation. AHA was here and they cited us. They actually printed this as a case example and then also cited for Merit. We went back just last month to ILPQC. They gave us several more awards, including Award for Data Excellence and Abstract and Implementation Plan.

I have given several webinars. So, thank you everyone for listening today, and I'm happy to take even emails and questions that you have. We have already published 20 abstracts nationally, internationally and five papers and several other pending.

But just in general, what are we doing for other programs? So again, I highly recommend people can directly contact me. So, University of Mississippi actually took our program in 2020 and instituted at their institution. And they are going to publish some data as well that they have similar results. So, they really just took our program and changed it a little bit. And they found that there was significant improvement in patient education. Now through the HRS we have several programs that are coming live or already doing it. And really just the same program that we have, because we really have a lot of escalation protocols and everything that we have implemented already. So New Jersey, North Carolina, the Dakotas, Upstate New York, Michigan, West and Colorado. So HRS typically is involved in this and go to these Zoom meetings and my whole team and we kind of meet with them several times and help them through different questions that they have.

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So, what is the future of STAMPP HTN here? So, we just applied for the phase three award. We are actually, thanks to Brenda, and my collaboration with our collaboration through the Linc program. We actually now have community health workers, which have been really amazing in terms of improving he goal is obviously to improve the adherence to this blood pressure check, but also just helping the patient with so many other barriers that they face in the postpartum period.

As it pertains to where do I want to go with the STAMPP? So, we're talking to the primary care providers here at the University of Chicago. They have remote patient monitoring for outside of pregnancy. So, I'm trying to collaborate with them to see if they can just take on my patients after the six weeks, and then I'm really ready to do remote patient monitoring for

adequate control of blood pressures during pregnancy. There's so much data that controlling blood pressure during pregnancy actually improves pregnancy outcomes. We are conducting behavioral interviews with patients and community health workers to really understand what are the barriers that obviously we don't know. I was just in recently in talk with so the next initiative that the Illinois Perinatal Quality Collaborative wants to do is called Birth Equity Initiative. And we're kind of saying that I feel personally feel if you deliver, you have a right to have control of your blood pressures if you had hypertension during pregnancy. So, we're going to try to see if we can push this out to all hospitals in Illinois as a Birth Equity Initiative.

Obviously, I'm trying to expand it to any health care system that's interested in this program, and you don't even have to do remote patient monitoring. If you don't. If you don't, you can just take the education and take the blood pressure cuff program. And then we just recently approached by CDC and ACOG, they wanted to put this as a good clinical practice in their in their brochures.

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So, before I end I want to thank my team. Obviously I work with great MFM physician. So my team is really day and night. We are on call and we take these pagers. My PA's are essentially running my postpartum hypertension clinic. My research fellows who collect all the data so we can publish, and my clinical fellows, my research assistants, especially Erin here, she literally enrolls every patient my clinical nurses, more nurses, more nurses who are on the floor. And they're just so proud of this program. And then last but not least, Dr. Lengyel has always been extremely supportive for all the ideas that that we kept going.

I get this question frequently, so I'm just going to go through people ask me, how did we get this funded? So like I said early on, I just got some money from the department and I went and bought some blood pressure cuffs. Subsequent to that, we got some amount of money from the Chicago Women's Board. Chicago Lying-in Board of Directors, Preeclampsia Foundation gave us some money, and then the HHS actually were giving out cash prizes. So we once we got that, we went out and hired a couple of research assistants, but also just bought more blood pressure cuffs. Currently, this whole program is funded through the UCM Health Equity Initiative, through the IT Strategic Program. So, it is free of cost to all our patients. And it is really standard of care for every patient that delivers here at our institution. Like I said, we enroll about 70 to 90 patients per month. And since its inception, we have enrolled about 5000 patients in this program. So obviously everything we do is for our moms.

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And this is recent celebration. This is my last slide. Is we just took the board around. Lots of my nurses, my fellows, my co-attendings. We have some cake and we had a really great time. So, thank you everybody for listening and I hope I'm still in time.

00:41:07

That was fantastic, Dr. Rana. So, thank you so much for sharing your lessons and strategies. Thank you so much for sharing this knowledge with others. I know this is going to inspire

other people to adopt and implement similar improvement efforts. It's such a great story the way you started and this just snowballed and is continuing to increase. So, congratulations to everyone on your team. So, audience members, please join me in congratulating the teams via messaging in the chat. And we'll provide all of your comments to Dr. Rana and team following this ceremony.

Dr. Rana. Do you want to, there we go. Stop sharing your screen? or are you going to advance? That's great.

00:41:57

So, we were really delighted to see the many applications that are submitted that you see here on the screen, the quality and the variety of the submissions. It was really incredible. It shows the breadth of the efforts to address health care equity that's steadily increasing. This was one of our hopes in establishing this program, that others would be inspired and that the efforts would continue to grow.

So, we want to take a moment to recognize the top finalists that are listed here Boston Medical Center Health System, Children's Minnesota, Good Samaritan Hospital, Mount Sinai Health System, Icahn School of Medicine at Mount Sinai, obviously the University of Chicago Medicine, University of North Carolina School of Medicine and UNC Health, and West Kendall Baptist Hospital.

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We also want to acknowledge all the initiatives that were submitted for consideration. These lists are available on The Joint Commission's Tyson Award web page for people to look through. We want to encourage organizations in the audience to be on the lookout early next year, for information about 2024 Tyson Award application from The Joint Commission publications and on The Joint Commission's website.

So, congratulations one more time to the University of Chicago Medicine. And thank you to our audience for your interest and participation. Have a great day.