Transcription

Media File Name: Maternal Mortality.mp3
Media File ID: 2566436
Media Duration: 1:27:13
Order Number: 1898950
Date Ordered: 2017-05-09

Transcription by Speechpad
www.speechpad.com
Support questions: support@speechpad.com
Sales questions: sales@speechpad.com

Megan: Hello, everyone, and welcome to this webinar. My name is Megan Hiltner and I'm with the Healthy Start EPIC Center. We have 90 minutes reserved today for this webinar. It's being recorded and the recording along with the transcript and slide will be posted to the Healthy Star EPIC Center following the webinar. We will only be taking questions via the chat function. And to do that, you can type your questions into the chat box at the lower left corner of your screen. And please chat those questions or comments in at any point in time because we really do want your participation throughout the webinar. We have a lot of great speakers for today that I'll be introducing in a moment. And we will be taking two questions between each of their presentations today. And we've allotted quite bit more time for more questions at the end of the webinar.

If we don't get to all of your questions or concerns, we will include them in a frequently asked questions document that we will post to the, with the webinar materials, on the EPIC Center website, that's healthystartepic.org. We also want your feedback. So after this event, if you can take a moment following the webinar and complete the brief survey that will pop up on your screen right after the webinar, I would greatly…we would all greatly appreciate your feedback. So for our Maternal Mortality in Healthy Start webinar today, let me introduce your wonderful speakers… And just note that here is our webinar agenda. The speakers listed here are in order, but there are two presenters, that they will be going in a different order.

So the purpose of the webinar is to provide a background for the connection between maternal mortality and infant mortality. Two considerations for increased understanding of and preventing maternal death will be shared. First will be the chronic disease and injury considerations, and second will be medical condition considerations. And that would be the pathways to maternal mortality. Resources and examples for looking at preventability will be shared.

And to introduce or kick off this great presentation, we have Kimberly Sherman with the HRSA's Maternal and Child Health Bureau, Division of Healthy Start and Perinatal Services. She serves as the women's health specialist there. She has a strong interest in health promotion in infant mortality prevention and currently assists with the division's efforts to support Women Preventive Health Services. Next, with Northern Manhattan Perinatal Partnership we have two presenters, Ms. Ekua Samuels and Ms. Claudia Boykins. Ms. Ekua Samuels is the Program Director of the Maternal Intentions Program which is funded by Merck

for Mothers and it serves clinically high-risk women. And Ms. Claudia Boykins, also with Northern Manhattan Perinatal Partnership and that program is the director of Policy and Engagements.

The next section of the presentation will be presented by Ms. Gwendolyn Daniels, she's the director of the Institute for Population Health. She's the Healthy Start Detroit project director and manages one of the original Healthy Start projects. And she's a longstanding member of the Michigan Maternal Mortality Injury and Surveillance Committee. Also with her is Dr. Roberts. She is currently the chair of the Injury Committee for the Michigan Maternal Mortality Surveillance, a joint initiative of the Michigan Department of Health and Human Services and the Michigan State Medical Society. She is currently the medical director of Behavioral Health at Meridian Health Plan and with prior full-time faculty appointments at Wayne State University and the University of Michigan, School of Medicine.

I also want to give some credit to Ms. Debra Kimball. She helped inform the presentation for the group out of the Michigan Mortality Review Group and she serves as the maternal health nurse consultant for the Women and Maternal Health Section, Division of Maternal and Infant Health at the Michigan Department of Health and Human Services. A lot more could be said about these wonderful expert speakers but we want to get to the meat of the presentation, so right now, I'm gonna turn it over to Ms. Kimberly Sherman to begin the webinar. Kimberly?

Kimberly: Thank you, Megan, and hello, everyone. Again, my name is Kimberly Sherman and I serve on the Women's Health Team here at the Division of Healthy Start and Perinatal Services. During the webinar today, I just want to continue the conversation on maternal mortality and highlight some of the bureau's current efforts to improve women's health, specifically in the arena of quality maternity care services and preventive screening guidelines. Before we begin I just want to send you all a big hug and thank you. I know that you are working very diligently in the field to improve maternal health outcomes every single day, so thank you from the bottom of my heart. I believe that we need every single person at the table to sound the alarm, raise awareness so that we all can work together to stop maternal mortality.

As we begin, I just want to kind of orient everyone's to see where everyone is coming from. If you wouldn't mind taking just a few moments to answer three questions about the status of maternal mortality and severe maternal morbidity at your Healthy Start site or in your

community, whatever organization you're representing, please feel free to just respond to these questions. So Megan, if we can go ahead and make sure that the polls are active for questions.

Megan: Okay.

Kimberly: Thank you very much. The first statement is maternal mortality and severe maternal morbidity are issues in my community? So just take a few seconds, if you could, go ahead and respond to that.

Megan: That looks like people are doing a great job of chiming in. And just, folks, you'll see three radio buttons underneath the question in the middle of your screen, yes, no, or don't know, if you could respond there. And Kimberly, if you could speak a little bit louder. I've seen some chats that folks are having a hard time hearing you.

Kimberly. Okay. Is that a little better?

Megan: That's great. Yes.

Kimberly: Okay.

Megan: Okay, it looks like the majority of folks have chimed in on that poll. Here are your results.

Kimberly: Thank you so much. So that is the end, the majority of the folks on the call do see that maternal mortality and severe maternal morbidity are issues in their community. We're gonna move to the second statement which is that my staff or team are trained to raise awareness and discuss these topics with our participants. Feel free to go ahead and chime in.

Megan: All right, folks are weighing in. The numbers are going up.

Kimberly: All right, Megan.

Megan: Here's the results.

Kimberly: Okay, good. So as far as those folks who are present here on the webinar, training is happening. There is still, we can see a little bit of a need for some discussion and training about these topics. So we'll address that today. And my last statement today is my Healthy Start project is actively addressing maternal mortality and severe morbidity in

our community. Thank you guys for chiming in. I'd give it a few more seconds. All right, Megan, if you can go ahead with [inaudible 00:07:35].

Megan: All right, there we go.

Kimberly: And so, again, you can see the topic is timely and people are working on this space. And so not only what your opinion and experience and doing it in your site is also being reflected in our current data, and I just want to share a couple of data points with you. So as we all know, nearly four million women give birth in the United States each year, but despite current events with the medical care and investments in improving access to the quality of care, nearly 700 women die annually due to pregnancy-related causes. The rate of maternal death is on the rise and the latest data from the CDC reports maternal mortality at 17.3 deaths per 100,000 live birth. In my opinion, I believe that a positive pregnancy test should result in healthy outcomes for both mother and baby. So as these rates continue to persist, we know that more work needs to be done.

So increasing the maternal mortality rates can be due to a varying number of reasons. First and foremost, we do have an improved data collections and data systems which we'll hear a little bit more about today. We also have the impact of advanced maternal age or obesity and chronic conditions that all are affecting pregnancy. From the chart here you can see that the causes of the maternal mortality are attributed to cardiovascular disease, sepsis, hypertension, and hemorrhage.

As we're talking about maternal mortality, it's also important to note that there are significant racial and ethnic disparities in the rates. They exist in these courses. African American women have a three to a fourfold higher rate of death from pregnancy-related causes than any other race or ethnic groups. In 2007, the reported maternal mortality rates for non-Hispanic black women was 28.4 deaths per 100,000 live births. And the rate for white women rested at 10.5. So, again, these disparities exist and the gap is continuing to widen and that's something that we need to work on.

If you're interested in learning more about what's driving these disparities, I would encourage you to look into the research that has been done on the quality of obstetric care and access to care. We heard from Dr. Elizabeth Howell recently at the National Healthy Start Spring Meeting and she spoke about her research efforts on the disparities in maternal mortality. She also led the work on the racial disparity, the

peripartum care, maternal health safety bundle, which I'll talk a little bit about in just a few moments.

Lastly, I just wanted to highlight the increase of severe maternal morbidity. It's also on the rise and it represents the near misses, those near death experiences that have been experienced by women across the nation. These numbers on the chart represent women who have experienced a significant complication or life-threatening event during delivery. This could include the need for blood transfusion as a direct need or even experiencing eclampsia. For every maternal death, approximately 50 to 100 women experience a severe obstetric morbidity. Again, just like maternal mortality, these rates are on the rise and racial disparities exist here as well.

All of this data tells us that there is an urgent need to improve the quality and safety of maternity care practices throughout the United States and abroad. The majority of these events can be prevented and the bureau has invested funds to help assist in these efforts through the use of safety protocols and checklists, which we'll talk about in a moment. So I'm here today representing the bureau, talking about our current efforts to improve women's health and maternal health via our national maternal health strategies. Our priorities for these strategies are listed on your screen, but they all focus in on the strategies two through five, which include improving systems of maternity care, improving the quality and safety of maternity care, and again, raising awareness and education about these topics.

I'm so sorry, someone is calling me.

In an effort, this screen just highlights a few of the investments including the National Healthy Start Program, the Alliance for Innovation on Maternal Health, and Women's Preventive Services Guidelines, which you'll hear more about Healthy Start's role in maternity mortality prevention. I'll focus on AIM and Women's Preventive Services today. So let's just begin with AIM. AIM is a collaborative opportunity between state public health agencies, birthing hospitals, and a wide variety of maternal and childhood stakeholders to lead a system’s level approach to improve maternity care outcomes. [inaudible 00:12:31] with me to ACOG and this project began in 2014. The goal of the initiative was to create maternal safety coalitions, create a set of maternal health safety bundles, and then to implement those safety bundles in birthing hospitals across the nation.

Here are the purpose and objectives, at the start of this initiative we wanted to reach eight states and to then partner with the birthing hospitals within those states. I'm happy to report that as of today, we have 11 AIM states with plans to enroll many, many more in 2018. Creating some system of the strategies of this initiative, I want to focus in on strategy number four, on tools and technical assistance, which really is the work driving the creation of the maternal health safety bundles and show you how you can access that information.

So the creation of the maternal health safety bundles is one of the core objectives of this project. The concept of the bundle was developed by the Institute for Health Care Improvement and it's a structured way of improving processes of care. The bundles really represent a set of practices typically three to five which when done together will improve patient outcomes. These bundles are actionable, so they tell you what you can do right now, today, in your own community to address that topic at hand. And they all work in four domains, the first being readiness. Is your team ready to address an emergency? The second is recognition. How does your team recognize patients at risk? Third is response. What is your team's response to an emergency? And then lastly, reporting or systems learning, how did your team improve and learn?

This slide lists our current and those safety bundles that are in progress. They include a prevention of obstetric hemorrhage, severe hypersensitive pregnancy, maternal VCE prevention, supporting patient's family and staff after a severe maternal event, safe reduction in primary C-sections, reducing disparities in maternity care. The two safety bundles that are almost in completion include improving the postpartum visit and then we just, again, working in October, on maternal health safety bundles to address obstetric care for opioid-dependent women.

I would really encourage you all to access the reducing disparities and peripartum care safety bundle because it addresses, it gives you an opportunity to talk about racial disparities through a patient safety lens. The bundle includes information on raising awareness amongst health systems, our departments of health, hospitals, and any person that cares or interacts with a pregnant or postpartum woman. You can access all of this information at safehealthcareforeverywoman.org. And on that website, you'll find the bundle materials. There are archived webinars that will give you information and an overview of each of the bundles and just kind of let you see what's out there, what's available.

Everything is freely and widely available, so please access that information.

Just to give you an example on the peripartum care maternal health safety bundle, under the four domains, one of the activities under readiness, there's information about educating your staff on the disparities and root causes of racial disparities in maternity care. There's also information on shared decision-making. Under the second domain of recognition, there's a call for education on implicit bias. What does that mean and how do we train our staff to address this?

Some activities under the response domain include making sure that you've established discharged care plans for every woman so that she will have appropriate follow-up care and that she knows the warning signs that she should be aware of once she is discharged from the hospital. Under reporting and systems learning, there's a call for disparity dashboard that's available, not only the leadership bust also staff, so they can see their reporting when a maternal event occurs, and also information on how to review cases and to share and talk about those outcomes.

The maternal health safety bundles are implemented at AIM state teams and also at hospital systems. And here is a list of our current AIM states and areas for project expansion. The AIM maternal health safety bundles have been implemented in approximately 643 birthing facilities as of April. If you want to find out more information about this initiative, please visit this website or feel free to contact me. I'd be happy to talk about AIM with you or put you in contact with the leads for any of the state teams. And very quickly I wanted to touch on our newest initiatives, the Women's Preventive Service Initiative which began on March 1st, 2016.

The goal of this activity is to improve adult women's health across the life span by engaging a coalition of health professional organizations to recommend updates to the Women's Preventive Service Guidelines. The project was awarded to ACOG and as I said, it began in March 2016. And their first deliverable was submitted to HRSA on December 1st, 2016. The framework for the project is that there is an advisory panel. The multidisciplinary steering committee recommends updates to those women's health topics for screening. And then the implementation steering committee will launch this summer and work with community-based organizations to raise awareness about the new screening protocols and to get the information out there.

Here are the aims of the project. Again, establishing a process and protocols for recommending updates to the existing guidelines, creating a coalition of health professionals, reviewing the guidelines for new scientific evidence, developing those guidelines into an updated resource, and then disseminating those guidelines for use in clinical practice.

On your screen are the topics for the updated Women's Preventive Service Guidelines. They include screening for gestational diabetes, HPV testing, STI counseling, HIV counseling and testing, breastfeeding support supplies and counseling, screening for interpersonal or domestic violence, screening for the well…annual well woman visit, contraception, and contraceptive counseling, and then breast cancer screening for the average risk woman, which is a new screening protocol that was just submitted as part of their December deliverable.

These guidelines are slated to go into effect beginning planned year 2018. And as we move closer to that target date you'll get more information. If you are interested to actually see the screening protocols or to learn more, here's the initiative's website. I encourage you all to go there. You can also place nominations for new topics that you'd like to see screening guidelines proposed for. And again, feel free to raise any questions that you might have right now or email me or the team at wellwomancare@hrsa.gov.

And with that, I'll turn it back over to Megan.

Megan: Thank you so much, Kimberly. I've been posting some of the great websites you've been sharing in the chat box. We did get one question here and it goes back to your slide, and I'm gonna scan back to it, it's slide number 11 where you shared some data. And someone is asking, they noticed in this chart that there was a sharp increase from 1987 to 1988. And this person was curious, what was the trend before 1987. Can you speak to that at all, Kimberly?

Kimberly: I cannot speak to that trend. Maybe some of the other presenters, I know we have clinicians and data analysts that might be on the line and...

Megan: Oh, I had the wrong, I am...thank you for chatting that in. I've had the wrong slide. I saw their chatted question around here. So it was actually this one that they were questioning. So, yeah...

Kimberly: [inaudible 00:20:59]?

Megan: Any of the other presenters, too? I'll open it up to these experts group. So sharp increase from '87 to '88, and what was the trend before 1987, because it's not shown up in this chart.

Kimberly: So the one thing I can share is that it's the, and you'll hear hopefully a little bit more about this, but the number of state-led maternal mortality reviews, currently I believe there are 27 statewide maternal mortality reviews but we're not capturing data from all 50 states. So in the early '80s, there was a charge to begin to collect this data and that's why we have data going back from the CEC from this point. Does anyone else want to chime in? But I don't know what the trends were like previously, so sorry.

Megan: That's a good question and maybe that will come up when the other groups are presenting their presentations. Well, thank you, Kimberly. And another shout out to you all, the division, for your support of this...there is a working group among the Healthy Start grantees that had really moved forward the planning of this webinar and it...thanks to the division for their support of that presentation, so.

So I think we're gonna move forward to the next presentation. I'm gonna turn it over to you, Ekua and Claudia, for your presentation from Northern Manhattan Perinatal Partnership.

Ekua: Thank you very much. Thanks, everyone, for joining us. It is an honor to be here to share this information. As Megan mentioned, we work with Northern Manhattan Perinatal Partnership and we have a Healthy Start program here. But our program is Maternal Intentions and we are specifically focused on addressing maternal mortality and morbidity in all women, clinically high-risk women, they're hypertensive, they have gestational diabetes and a range of chronic diseases. So thank you very much for having us.

With our presentation, we are hoping to... Kimberly did a great job of, you know, contextualizing the trends in maternal death and the disparities that are there. We would like to all see you about kind of the pathways of how we get to that in relation to chronic illness and the social determinants that drive those chronic illnesses. We also like to share some of the things that have worked well in our program that is specifically working towards this as well as just, you know, talk about

how this can be folded into other programs, certainly Healthy Start.

Before we get started, you know, we're looking at maternal mortality data, there are lots of rates and indicators that you read about, and they have distinct differences. When, you know, you're looking at pregnancy-associated death. There's also deaths that happen to a pregnant woman regardless of the cause. We specifically, you know, talk about chronic illness and complications. Our other fellow presenters will talk about death from, you know, other causes, but there are distinct differences, and pregnancy-related deaths are the deaths that we're concerned with. Those are the deaths that are either caused by pregnancy or aggravated by pregnancy. So for our purposes, maternal mortality are deaths that are causally related to being pregnant.

And Kimberly also talked about maternal morbidity, and for every woman that does, there are a hundred women who suffer a life-threatening complication, and so maternal morbidity being a precursor to maternal death is definitely a significant indicator for us to constantly pay attention to.

In New York City, New York City Department of Health and Mental Hygiene published a report in 2015 that gave us a lot of information about what's going on in our city with regard to maternal mortality. And what that report found was that hemorrhage was the biggest cause of maternal death in New York City for this period of time. It was followed by embolism and pregnancy-induced hypertension and then cardiovascular conditions. But specifically, in New York City, and I'm quite sure it's different for other cities, hemorrhage was our biggest problem. And for that same period, it's almost three times the national average for hemorrhage. And so that is something that needed, you know, a lot of our attention.

As far as severe maternal morbidity, the leading diagnosis for near misses and life-threatening complications, the diagnosis for severe maternal morbidity in New York City is a complication of surgery or medical procedure when she's giving birth. So that's really significant. If we can get women to have birth result in needing surgery or needing complications to mitigate other issues, that's definitely going in the right direction. The procedures indicated in the New York City hospitals, the biggest procedure was blood transfusion, 65% of the procedures, and severe maternal morbidity with blood transfusions, which makes sense since the biggest complication is hemorrhage. And other procedures including hysterectomy will sometimes have to happen to save a

woman, ventilation, probably usually in pulmonary embolism situations. Excuse me. And the leading cause of hemorrhage was C-section. So again, if we can get women not to need surgery when giving birth, which usually…also obesity, and we'll talk about how, you know, obesity leads to these complications, preeclampsias, gestational diabetes, and blood disorders.

So, chronic disease and the outcomes that we're seeing in maternal mortality and morbidity. So we know that, you know, chronic diseases are associated with these issues. And the chronic conditions, unfortunately, are driven by social determinants that disproportionately affect minority groups. Simply just being overweight or obese is leading to adverse pregnancy outcomes. So the complications of hypertension, diabetes, respiratory conditions, blood clots, all of those are tied to chronic diseases and also particularly overweight and obesity.

So, therefore, the poor management of chronic conditions increases the need for C-sections and other procedures. So that's kind of the pathway. We have chronic diseases that are causing, you know, the need for surgery and procedures that are then putting women at risk to either die or suffer severe morbidity.

Going further upstream, all these social determinants…and so we know in our work and just in general that a woman cannot prevent illness. It's very difficult for her to manage an existing illness if she doesn't have her basic needs met, stable housing, nutritious foods, feeling safe. And so that is very intuitive. And so when we look at even housing stability and homelessness, in New York City alone, a great proportion of homeless shelter residents are women of child-bearing age, there are pregnant women, and there are women with children under the age of five, so that’s cause for concern. And further, domestic violence is an issue also, not only is domestic violence is an issue in terms of all the issues, the causes for wellness for a woman, but it's also at least in New York City, 22% to 57% of homeless women report that domestic violence is their immediate cause of homelessness. And so that's another major social determinant that we have to deal with.

And then there's mental health, and then there's studies that have linked mental health to specific chronic illnesses particularly diabetes and depression. So there's…studies have shown that there's a bidirectional relationship. So being depressed has numerous pathways to a woman's becoming diabetic, and conversely being diabetic also can cause a woman to be depressed. So it's very important for us to also pay a lot of

attention to depression and other mental health in clients.

What we're seeing specifically in our program are all these social determinants of health. So the research is telling us that social determinants lead to chronic disease and that's leading to maternal mortality, but we're seeing it in our program population very clearly. Most of the woman we served in the last two years Maternal Intentions has been around, there's almost 200 women and most of them are suffering from, one, a lot, two, and sometimes more of these conditions, unstable housing, domestic violence, immigration status play a role. Depression and anxiety, some of our moms are, you know, bipolar and schizophrenic. Many other moms just chuck the health care system which is a no-go if, you know, we're trying to manage chronic diseases. And part of this is part of the quality of care they're receiving, with special care that they're not receiving.

Some of our moms, you know, have prior experiences or have been in that severe maternal morbidity statistics and, you know, they attribute it to, you know, their care being mismanaged. And so, you know, that's a huge situation that we're dealing with programmatically. Ambivalence about seeking care is also, you know…and ambivalence is, you know, it's a research term. It doesn't, you know, for us, we know that women don't not care that they are dealing with so many of the social issues and that's why they're unable to prioritize their health and manage their chronic decisions…their chronic conditions. And then there's lack of support from many of our women, we're the only support that they have. And so that's a huge issue. So this is what…these are the social determinants and the issues that we are seeing in our, you know, in our program population that is specifically, you know, suffering from chronic disease and at risk for adverse maternal outcomes.

This slide is just kind of the depiction of everything I talked about in the last slide and, you know, in some cases these social determinants and research, you know, show that they lead directly to poor health outcomes and poor birth outcomes. And in some cases, there's kind of a pathway that is, you know, where stress and depression is the go-between and poor self-care is the result and that was bringing the outcome. So this is just a graphic depiction of all that we're talking about as far as social determinants and chronic disease and the poor birth outcomes that later result.

So what we've seen that has worked in our program and what we, you know, strive to do in our program, first and foremost, being very

consistent and relentless about our messaging around self-care and our women prioritizing their health. And our programming, as you all know, we're helping women with a lot. We're helping them with housing, we're helping them with work, and food security, and child care for children, and early intervention, and things like that with their children. But in our program, we always try to bring it all back to that woman because that's what we're charged to do.

Certainly the care coordination around our clinical services and escorts definitely have to be creative as far as securing her stable housing, whether it's supporting her through the shelter system here in New York City, or just even helping, you know, manage her to manage her relationships so that, you know, whoever she's living with, she doesn't find herself, you know, put out or…you know, our CHWs, our Community Health Workers, help moms to organize these and things like that to help with that.

It's also very important that our staff is trained and very savvy when dealing with domestic violence. A great proportion of women are dealing with this and not only does it, you know, prevent access to health care and prevent them from taking care of themselves, but in some cases, if we're not careful, we prevent them from even getting help from us. And so there's a lot that has to go into workers being, you know, savvy about dealing with a woman who we know is in a DC situation, whether or not she's disclosed it, and keeping her safe and keeping her engaged.

Doula care is a huge part of our intervention. With doula care, you know, women are able to actually be in the clinical setting where it all goes down, and provide tactical and practical support and advocate for moms and help her advocate for herself. And even our doulas who are doing work with other moms who are not, you know, the right risk moms in our particular programs say the issues and the way things happen with our moms is totally different, and they need so much more support than the average mom. And, you know, I'm quite sure, in Healthy Start programs that aren't specifically dealing with [inaudible 00:35:51] I mean they are there. They are there. So we're fortunate enough to target them and be serving them, but they're within the population. Mental health, counseling referrals are a must. We try to do fun activities with moms that are not tied to health education or any of our services. Just, you know, creating a space where moms can just come and see what the other moms or do something with their babies and encourage more of that, and, of course, our health education.

I'm gonna turn it over to Claudia.

Claudia: Hello, everyone, this is Claudia. So this is a graphic depiction of our work. We see, and with the white bubbles, the problems contextualized, as Ekua presented earlier. But then there's the intervention that our work is bringing in green. That intervention is helping to move the needle. In addition to the technical support that we see on the right side coming from our community health workers and our doulas and the group activities that we have structured for our women, we also have stakeholder and provider engagement, owing to the fact that this work cannot be done in a vacuum.

And so this kind of changes the then outcome we see in green at the bottom of the slide leading to more improved physical and mental health, leading to space of births and improved maternal outcome. What we have to teach the women and families really is the signs and symptoms of preeclampsia and other serious issues, VTE, venous thromboembolism, for example. We have childbirth education to get to understand the physiology of birth and what to expect during childbirth and how everything is handled.

Stress management, I think we all understand. Ways to manage stress effectively is, of course, key. Mobilizing their support system, so the women have a support system and as they age out of our particular interventions, they need to recognize those and build and strengthen them. It's vitally important that they are empowered to mobilize their own organic support system. And managing providers and medications, that's key. The woman needs to practice and be able to communicate with their providers, making sure that their provider is a good fit for their needs, and it's not then to change providers. So empowering women and letting them know that this is something that is within their right and within their doing, they're able to do something like that.

Removing the stigma from seeking mental health services, that's a big one. Women, you know, need to understand that they need to know that part of managing one's health is managing one's mental health. These women, they know and they trust us. They know that we're gonna show up for them and they know that we're gonna back them up. They also need to know how to show up for themselves and understand more and more that if she isn't well, and her family then is at a greater risk. Of course, there are challenges. So the determinants are a result of structural determinants, racism being a key example. So systems change is what's needed.

Social norms can be a challenge, lifestyle, eating habits, how one engages the healthcare system, these are things that people have come up and they can actually be, you know, a challenge for an individual, a woman. Another challenge is that there's a culture of ambivalence towards pregnant and parenting woman. For example, in New York, when an expectant woman enters a crowded subway train, for example, why is it that no one offers their seat? And sometimes if someone does offer a seat, it's interesting but, you know, some women will actually say, "No, thank you." You know, they'll say that, no, they're gonna turn it down because of this kind of superwoman mentality.

And policies themselves, policies within our organizations oftentimes are harmful to women. One, again, that we've run into quite often is a postnatal woman who is in a shelter system, so a homeless, you know, woman postnatally is prevented from returning to her prenatal shelter. And this is right at the time, you know, when a woman is most vulnerable, you know, with a one or two-day-old child and not in, you know, the best that health herself, having just come out of childbirth. She has to then pack up her own things or her things to pack this program, but somehow she's got to figure out in the midst of this situation how to move, where to move, how to settle in at, again, one of her most vulnerable periods. And this is a policy, and so things like that can be changed. And lastly, I'll talk about linkages of care, or the lack thereof. They are so critically important, and when there are no linkages, when there isn't a bridge between clinical providers and non-clinical support systems, it's a huge challenge for the woman to navigate.

But one of the things that's so encouraging about this webinar is that the whole way that Healthy Start is structured, with the home visitation and the community action network, is a huge strength in addressing this issue. In Maternal Intentions, you know, we are specifically focused on that, but Healthy Start structurally can have, you know, really a lasting impact, and it's so encouraging to see that attention is being paid to this issue in Healthy Start. One of the things I want to mention is the long-term funding of Healthy Start, the five-year cycle is a great way of having and establishing consistency of intervention. And at the same time, there's an opportunity for innovation. Every five years, I understand it's, you know, we look at what has worked, etc., and it's an opportunity to really innovate at that point.

So as I'll say, it's putting the “M” back into maternal child health, putting the “M” back into MCH. It's comforting to know that Healthy Start has

recognized that maternal mortality is trending up nationally and that there needs to be more focus on mom. Thank you very much.

Megan: Thank you so much, Claudia and Ekua, for the informative, great presentation you had or you provided. At this point, we don't have any questions in the chat box. Is there anyone that has some...any questions or comments regarding what Claudia and Ekua just shared? I'll give you a moment here before turning it over to the next presenter. And just know we'll have more time for questions after our third presenter here.

Okay. So I think we're gonna just go on to our next presentation, Dr. Mary Roberts and Ms. Gwendolyn Daniels will be presenting here from the Michigan perspective. I'm gonna turn it over to you, Dr. Roberts.

Dr. Roberts: Thank you. Good morning or good afternoon, everyone. Gwen and I are going to introduce you to just a Michigan snapshot, if you will, of the Maternal Mortality Surveillance in Michigan. And you'll hear me, as we've seen my portion, talk more about the way we think about the injury surveillance and some of the methodology that we have been attempting to apply in an effort to create order out of a very complicated practice or complicated process of doing this particular area of discernment for case review. Next slide.

Can you hear me?

Megan: Yeah. We hear you fine.

Dr. Roberts: Okay. Thank you. All right, the Michigan's mortality, Maternal Mortality Surveillance is the result of an extensive committee and partnership effort between the state and a large array of professional organizations as well as MDA, JJAS, bureaus and agencies, as you can see. I'm not gonna go through all of them, but we have extensive representation on both the medical and the injury committee as well as informal participation, consultation, and assistance from many of the leadership within these organizations. Next slide.

The State of Michigan, the medical committee, itself has had a very long run. It has had an uninterrupted review of maternal deaths since 1950. The web link is provided for you there with greater history, greater detail of the history. But in the next slide, you have a better idea of some of the developments since that time and the point at which the injury committee enters the picture. In 2002 that we've...we had an important

transitional year that we see here in which all the maternal deaths within 365 days of pregnancy, excuse me, I lost my screen, were reported including those deaths that were due to injury.

By 2003, the Division of Family and Community Health had permanently, or not permanently, but had formally assigned staff to help prepare case information of the committee activity, which was an enormous advance in terms of the potential power of the committees to move forward and achieve their goals for each year's review, 2004 was the year that the injury committee was established, 2005 was further development where an interdisciplinary committee formed at the end of each review year to bring together both the injury committee and the medical committee findings and to refine recommendations to largely an audience from the state or other involved stakeholders for moving recommendations forward hopefully into public health action.

And 2010 was another milestone year for our surveillance in that there was a development of a searchable state database. And it’s been launched and it's still developed…in development underway as revisions are transiently made to these database improvements that are moving towards the application of specific levels of preventability and the recommendations that we'll make. Next slide.

And a brief overview, slides have been provided for you all to give you an idea of how case identification is organized. And at least for Michigan process, it basically consists of two major areas of case finding and then the follow-up expert advisory committee review. Voluntary reporting had been the procedure that generated the cases or the basis upon case generation up until 2017. We have been pleased to be able to announce that our state now as of April 2017, he has mandated reporting for this effort, which will enormously enhance the quality of our data and the safety of the state's moms.

The case finding process, I'm not gonna get into the detail of the actual case finding itself but the key points in there, and the most important indicators in the case finding process are available from the death certificate, the old codes, and identification or the probabilistic linkage. Once those cases are found and identified and entered into the database, there is an interaction process that takes place and the case obstruction now is based very much on the data points that associate with the database. When we have that provisional database and the...of cases that have been selected and abstracted for review, they're subdivided between the medical case review committee and the injury

case review committee. And then those are evaluated and discussed, and finally determined and moved forward in a process relating to the preventability, our levels of preventability, and move forward for recommendation generation. Next slide.

Some of the important key indicators that we have to thank Vital Records 2010 for that have been important, I think that the first mortality finding per 100,000 live births has already been somewhat discussed or identified in that the pregnancy-related mortality of 17.4 per 100,000 pregnancy-associated mortality of 55.8 per 100,000 live birth, so it's not an unfamiliar number. But in the causes of death for the State of Michigan, what is most striking to those of us that have been working under injury committee is that 69% of causes of death in the mortality reviews that we have evaluated have been for non-pregnancy related causes. And it's not on the slide, but further another striking finding has been that I believe close to 75% of those non-pregnancy related death have occurred outside of hospitals. And that is a significant issue if you are looking to evaluate these deaths on the basis of documentation review. Next slide.

The Michigan pregnancy-associated mortality trends, again, provided to us by the Michigan Department of Vital Records between 2007-2010, again, just clearly illustrate how much more significant concerning that pregnancy-associated or the non-pregnancy related deaths are in proportion to the pregnancy-related death rate. And why, and it explains why it is such a focus of attention for us in our state. Next slide.

Again, we can say the Department of Vital Records, for a little bit of additional information, I'm going to spend a minute just addressing the non-pregnancy related pie chart in that some of the predominant causes of non-pregnancy related or pregnancy-associated death in recent years have shifted, whereas in earlier years of injury review, motor vehicle accidents by far overtook the predominant reason for the underlying cause for pregnancy-associated death. Substance abuse has been creeping upwards, and in some states what we're taking it’s one of the more predominant causes of a pregnancy-associated death, and that may be reflected with or without the area of indeterminant other medical deaths or overlap with drug-related or suicide deaths. We have some difficulties with the actual discernment of cause of death particularly in the cases of prescription overdose. Next slide, please?

The Committee of Determinations takes a little bit different form. The injury committee applies itself to discussing, once they've received the

abstracts from the preparatory processing. We review and discuss delays at different level and applying the stages of delay model. And we also have a fairly structured discussion about levels of preventability and the hierarchy of prevention from the public health's perspective. And then we work on generating recommendations. The medical committee works at dissemination or, excuse me, discernment and consensus score cards of death. They make determinations and whether the death is in their view by consensus pregnancy-related or pregnancy-associated, and they also move forward preventability recommendations for each case.

One thing that is strikingly different, and not literally different, but it's sort of strikingly different in thinking about the ways the committees approach our cases, the injury committee often has to relate and correlate to a cause of death. We look very carefully at contributing factors, underlying factors, that might be associated with the final outcome, with the death outcome. We don't have necessarily laboratory findings or we don't necessarily have clear-cut and well-established, you know, clinical practice guidelines for specific types of pathology or management to guide us in the same way. However, we do make an effort to incorporate some of the more formal aspects of qualitative evaluation in trying to look for trends in their work. Next slide.

So moving back to the case reviews, the cases interviewed by the committee are de-identified. A written narrative at least in the medical committee is typed up by each reviewer independently. On the injury side, we have been working more specifically with de-identified cases but narratives that have been associated and somewhat serve and correlate to the database information that comes forward to us from the first abstraction, so one big advantage has been that we have consistent data points. We might have the same type of information that is consistently collected on each of the cases reviewed. The de-identified case reviews are read and presented by injury members, the committee members at each meeting. And there is a period of open discussion and observation on the...and answering questions, identifying phases of delay, talking about preventability at both the...at the primary, secondary, and tertiary level, and then recording our determinations. Next slide.

I think the challenges are pretty clear to many of the interdisciplinary committees out there. Capturing the deliberations in a way that is going to be robust and meaningful going forward is always very important. Trying to pick up, identify any trends, and to make appropriate

recommendations can be a challenge. We have worked from the qualitative approach to large narrative case studies and pursuing our case studies in the injury surveillance and actually have had some very nice findings in certain years. But it is still a challenge when you have a low overall number of cases to identify important findings and be able to move them forward when you don't have a strong or large quantitative numbers for any given year. Ascribing preventability is obviously more difficult at the injury committee level than it might be at the medical committee level because we have multifactorial social, psychological or medical contributors to a final outcome. And then using the results of those deliberations to inform the database since statistics is also, again, for the same reason and for working with a lower end, for the final number of reviews for a year, it's going to be challenging to have reliable numbers from year to year if you're going to try to combine analysis from year to year. Next slide.

Just in review of the levels of preventability and…that we have followed and we have followed a format and an algorithm that we've finally referred to as the "Michigan model" and I think it's probably more formally also referred to as "Michigan model." But we really do make ascertainment about the overall case but also elements that contribute to the case of the different system levels that…or the different systems engaged and involved in a woman's care when we're doing an injury assessment of preventability. We look at primary prevention, and again, that would be an example. That has to do with anything that's population-based or a health promotion activity. In the case of many of our moms, it might have to do with education.

Were there, you know, specific topic ranges of education? Was there availability of any public health messages or campaigns on specific areas relating to domestic violence, relating to gun violence, relating to substance abuse, those kinds of things? We might look at identifying secondary prevention types of activities in that early disease or condition detection. Often, you might hear recommendations coming forward that relate to maternal infant health referrals might be looking at other kinds of screening opportunities, domestic violence screening opportunities, and the sites of where that screening might occur in relation to some of our cases. And again, tertiary [inaudible 01:01:23] prevention and those kinds of factors that may reduce that negative impact of already established condition, and a great example of that might be access to specialty care and substance abuse or other kinds of interventions. Next slide.

So I believe we might be at...

Gwendolyn: Well, thank you, Dr. Roberts [crosstalk 01:01:55] those are my slides.

Dr. Roberts: So there you go.

Gwendolyn: Thank you, Dr. Roberts. I just want to say that the death of a woman during and after pregnancy tells a story of a missed opportunity. And as we deliberate on the cases and review, we begin to think about levels of preventability and what can we do to identify where the woman was and how did she intersect with the health care environment, social environment, and other providers. As Dr. Roberts said, described, primary prevention level really relate to public awareness and education. For example, on Tylenol, there's now labels that talk about excess dose and danger, and there's warning signs where the public who buys over the counter medications could begin to know that even simple medications such as Tylenol could be very, very harmful. Next slide. Next slide.

Secondary level injury related preventability recommendations, we learned that you need uniform screening tools and they're needed across all healthcare settings, in the doctor's office, in the clinics, in the ER, labor and delivery, and they need to ask questions about substance abuse, domestic violence, and depression. Communication and coordination of care, which is a hand-off, is critical to the continuity and quality of care during pregnancy and postpartum care. Providing education at professional conferences and regional meetings that talk about, for example, the work of Michigan Maternal Mortality Surveillance case reviews is a powerful message for OB specialists and primary care physicians, psychiatrists and mental health providers to begin to think about what could we have done to prevent the death of the woman. Do the Child Protective Services, do they understand about preventability and understand that, you know, while she's pregnant or parenting a child, were there some opportunities to assess her health. Same issue with domestic violence, shelters, are we doing a better job at educating those providers about the importance of maternal mortality and injuries? Next slide.

So there's missed opportunities even at the tertiary level. We need to close the gap between crisis centers and access to care, and making certain that, you know, women who have mental health issues are screened and a psychiatrist can actually be a life-saving measure. We

also know that there are implications for policies at the local and hospital level systems and care, when petition and certification meet the call. For example, if you have someone who had signs of suicide, are the policies in place that you would go through their personal belongings and check and look for, you know, sharps and things that they could injure themselves. I mean there's an opportunity for a hospital staff to become more aware and cognizant of injury even happening in hospitals. And what can we do to close that gap for missed opportunities? Next slide.

For the past 12 years, the Michigan mortality committee had a lot of accomplishments, and one of the accomplishments is that we wanted to align the work of the case reviews and surveillance data with public health title-sized priorities. We wanted to be able to implement these findings about domestic violence such as abuse, homelessness, and injury, car accidents, as we begin to talk about women's health before, during, and after pregnancy.

The Michigan Mortality Review Injuries are working with the suicide research project with the Grand Valley State University Epidemiology. There's also an input about office of highway safety and planning. We're talking about seat belts use during pregnancy. There's a brochure that was developed. The injury committee also does presentations at the Michigan section of ACOG, at Medicaid Outpatient Mental Health Policies, at the Michigan Association of Local and Community Public Health Premier Conference, presentations that had been done nationally to talk about the work of the injury committee at MTAC and at every mother initiative guaranteed technical assistance.

So the information is being shared widely so that we have an understanding about how important it is to begin to look at the death of the woman and have her story relate to how we can prevent death of other women. One of the works that we have done is at the Michigan Automated Prescription System is that now we can begin to get data about state-controlled substance abuse monitoring and do some education. Next slide.

Recommendations, also we want to develop a standing data subcommittee as a joint endeavor between the state health department and Maternal Mortality Review Committee and do publications about emerging issues from what we learned about the process. We also want to implement education guidelines for case summaries that can be used as a synopsis during grant rounds and professional conferences. Next slide.

We also want to consider adopting a method to define domestic violence cases to classify the number of statewide maternal death related to domestic violence. Past cases not originally classified as domestic violence could potentially be redefined and tell a story about what we can do in terms of prevention. We also want to publish recommendations for lessons learned from the hemorrhage-related maternal mortality cases in Michigan. Next slide.

We also want to recommend labeling over-the-counter pregnancy test and say, "If you take this pregnancy test and the results are positive, positive test, then you need to talk to your doctor." Adaptive pregnancy recommendations are also an important because it could be some of the first signs that when you have access to prenatal care, you might have symptoms of early pregnancy complications, and certainly this is an opportunity where we can begin to intervene so that we do not have missed opportunities to prevent maternal death. Next slide.

Lessons learned and recommendations, we want to refine preventability and recommendations so that they capture the depth of the deliberations that we have during our meetings. We want to aggregate the Michigan data to identify the trends. What are we seeing from our data, and then we certainly want to work with aggravating the data and presenting the data as we work for clinical recommendations and getting opinion from ACOG and from other guidelines so that we could begin to develop protocols that can be educated to all of our providers, not just hospital-based but outside of hospitals. Next slide.

Identify trends and making opportunities, recommendations for case studies, very important. And we want to ascribe to a broader scale of preventability and implications at the state, local, and systems level of care to transition our work into public health. And we want to rely on volunteer…our challenges, that we rely and volunteer and in-kind support for the experts who come to the table and who spend their time doing this work. We certainly want to, as a challenge, allocate resources to a comprehensive data collection system so we can do complete analysis and review. Some other challenges is that we want to use the review from the deliberations to inform state-level databases and statistic and policymakers. Last slide.

Our current initiatives. And, again, we are working with the, I had mentioned this earlier, but the CDC pregnancy checkbox study. Michigan is working on the maternal mortality framework for

preventability. Michigan is working on a research study to determine risk factors via current themes, looking at common errors, and systems, and issues that contribute to obstetric hemorrhage related to maternal mortality. Also Michigan is working on a research study to identify the contributions of maternal obesity to pregnancy-related mortality in the Michigan experience. Last slide.

Basically, what we learned and looking at the lessons learned is that the woman needs care. She needs the right care at the right time and at the right place. And to a significant extent, this is a problem of policies, priorities, management, and not of resources. Improving access to emergency obstetric care does not necessarily require building new hospitals or training new cadres of workers. Much can be achieved by improving the functioning and utilization of existing resources, existing facilities, and personnel. And this is our last slide.

So in the future, we want to have new collaborations. We want to have engagement at the national, state and regional and local levels to improve outcomes for women, infants, and their families. And the death of a woman really tells a story about how she lived and how society provides care for her, and we want her story to be told so that her death can prevent death of other women. Thank you. Any questions?

Megan: Thank you so much, Gwen, for that, and for Dr. Roberts, for your presentation. As I show you the, what I believe is the authors, you know, to some of the work that you're doing, I did want to share a couple of questions that we had. One, for you Dr. Roberts and Gwen is, do you see a link between drug-related death and assault deaths?

Dr. Roberts: You know, we see a lot of co-occurrence certainly. And often we will have the information that all of the information that we would need to make that association but not always. So I have to give you a partial answer because I think that there may be times where we don't have every witness's account in terms of the…both the presence of the substance abuse and the presence of the violent encounter. But I guess we haven't reported that separately but anecdotally, yes, there's quite a co-occurrence.

Megan: Great. And this question is really for all of the expert presenters. This person is asking if any of you would be willing or would like to comment on the collaboration with FIMR or Fetal and Infant Mortality Review, they found that many of the determinants of infant mortality are the same issues placing mothers at risk for severe morbidity and

mortality. Would anyone like to comment on that?

Dr. Roberts: I can't comment directly for Michigan and I'm kind of wishing right now that Debra Kimball were on the line because there have been very direct pathways, a very well-worn path tried in between FIMR and the Maternal Mortality Surveillance in Michigan, but how that has correlated or corresponded, Debra would have to speak to that.

Megan: And I have Debra's email address, so I can connect her with the folks asking this question.

Dr. Roberts: Perfect, yeah.

Megan: If you have any other questions…if folks do you have any questions please chat them into the chat box, we now have a few more minutes left in the webinar for questions and comments. And here's a question for you, Ekua and Claudia. You mentioned the importance of, you know, supporting the workers and the staff that you're working with and you mentioned mental health, and I'm wondering how have you educated our what have you done to address the piece around stigma and encouraging women to seek mental health care or services?

Ekua: So one, we, maintain collaborations. We're working on a new one with the Presbyterian Hospital, but in the past, I forgot who our last contract with, that has an onsite mental health counselor who is here one, sometimes two times a week all day, and our clients are able to, you know, see them. And we found that, you know, it's a nice buffer to ease women into mental health. They're coming to a place that they're familiar coming and comfortable and speak to someone here. And sometimes in health, in the long wakes of the appointment, because as many of you know, mental health appointments are few and far between because there aren't a lot of providers in the first place, so it's a nice kind of in-between if there's a long wait, but it also kind of primes here to be in the, you know, familiar and non-threatening, you know, space and suspect that process. And then she is able to then continue with her referral and accessing it, and it helps take the edge off a little bit.

Claudia: And what I would add to that is that we've integrated, the provider, the mental health provider, into group activities as well. So women are used to, you know, owing to the centering, you know, parenting and centering pregnancy model, women are used to coming to a group setting to kind of feel what other women will ask, and then ask questions obviously themselves, and having the psychologist and

say in that space, it also, you know, provides a kind of bridge to, "So these are the kinds of things that you know, this type of professional can help with. Okay, I get it." So those two things.

Megan: Thank you. And back to the FIMR question, someone chatted in that FIMR in Baltimore City conducted a PPOR analysis and determined that most of the infant deaths occurred in the maternal care area and it was determined that moms suffered some chronic disease, generally hypertension and obesity. So that was definitely a comment in line with that previous question/comment.

Other questions or comments or other…even other resources that you will, in this expert panel, presenter panel, you'd like to share with the group?

We have a slide here with some key takeaways and so I feel like here are a few key takeaways but if other…if the speakers have other key takeaways you just like to remind everybody as an actionable thing they can either look into or follow up on or consider, please feel free to share. Kimberly, I know these were a lot of your key takeaways so I'll…would you like to speak to any of these takeaways here?

Kimberly: Sure. Just from the bureau's perspective, we are working in the clinical setting but there's so much that community-based organizations can do, and first and foremost would be to speak with every woman at every pregnancy about the risk and potential risk for maternal mortality and severe maternal morbidity. So that would be the first thing. Training, just raising general awareness in the community, most folks that we speak with don't even realize that this is an issue, that it could still be an issue in 2017, but it is a real issue. And then find out if your state has a maternal mortality review. Healthy Start should be at the table. Make sure that you're there. If there's no healthy Start maternal mortality review in your state, you can contact me and we can put you connected with the CDC who has a new initiative to help ramp up state maternal mortality reviews. And so that's just another way that you can participate with ringing the alarm and work to end maternal mortality. Thank you for your time today.

Megan: I'm just chatting in to everybody your email address here, Kimberly, hope that's okay, that so they can follow up with that.

Kimberly: Yes, please do.

Megan: And other folks, others presenters, any other key takeaways or reminders that you'd like to share?

Claudia: This is Claudia. One of the key takeaways I do want to share and because given the time, we kind of glossed over it a little bit, but the sheer importance of engaging a set of providers. You know, I love the CAN model that Healthy Start has, the Community Action Network, but really, you know, making sure that that's the present center in the programming efforts. For example, at Northern Manhattan Perinatal Partnership, we had a networking, a community networking event about a week ago and we brought together over 80 providers, both clinical as well as organization-based providers in the space and set up, you know, structured an activity that really got people interacting with each other. And it's those kinds of meetings and those kinds of spaces that really enable folks on the ground to understand how they can impact and how they can support women and how they can really get the word out.

As Kimberly said, many people don't even realize that this is an issue and certainly a growing issue right here in the United States. You know, you mentioned maternal mortality and everyone says, "Oh, yeah, I heard about that and, in know, some far off land." And really, what, you know, part of our issue is letting people, the women, but also everyone really understand that this is an issue. And the good news is that it is manageable with the right support, with the right, you know, management, clinical management, etc. But if you're not aware, you know, you're halfway down, you know, as people say. So I really just…the key takeaway is to really understand, you know, that this cannot be done in a vacuum and it really is about, you know, awareness, working together and getting the support that we need, you know. One of the things we talked about with maternal mortality is that these are preventable deaths, you know? And really working together, we can really start to curb this and fence [SP] it out.

Megan: Thank you, Claudia, so much for those remarks. Dr. Roberts or Gwen, do you have any key takeaways you'd like to share?

Dr. Roberts: I think I would add just a takeaway that actually, really, it's just a practical observation from the injury information, the injury data that we've clustered and observed overtime, and that’s that critical importance of maintaining a connection with mom after birth, whether it's a postpartum check or the early pediatric checks or home visiting, whatever the contact opportunity is right after birth. There's a key window of time that often is a missed opportunity, as Gwen said. That's

when some of the most important postpartum depression screening can take place, some of the most important domestic violence screening should be taking place or picking up on any resumption of substance use.

So, I mean, I think that there are tremendous opportunities where all of the maternal mortality efforts, and FIMR, and community efforts, and active treatment efforts intersect and that might be just, again, remembering how that information informs our need to stay very vigilant after that baby is born.

Gwendolyn: I just wanted to add too, this is Gwen, that, you know, maternal deaths, it could be of any race, any class, and we just don't want to assume that, you know, any one population is at greater risk. Given our, you know, society now where, you know, families are struggling with opioids and struggling with domestic violence, we want to make certain that there's a standard screening tool that we could ask a question for every opportunity that we can to find out if this woman is at risk, if she goes to work, if she goes to get her social security, if she goes to get her driver's license, we are typically able to make certain that we are screening our women and looking for opportunities to help them because it happens so quickly and when woman are dying, you know, and at the prime of their lives and when their babies need them the most, we just need to look for every opportunity of where we can to prevent a death of a mom.

Megan: And I'm so glad you brought that up, Gwen, because we did get one last question in the chat box because it's right in line with what you just...those great remarks you just said. Is there a tool to use to analyze the participant's risk for maternal mortality and morbidity? And I'll put that out to the whole…all the speakers.

Dr. Roberts: I guess I would just comment briefly. I think there can be a toolbox of screening tools because I think the different initiatives and the different types of problems are associated with different best practice screenings. There are a variety of postpartum depression screening tools that are disseminated, you know, through ACOG, through other venues, to educate health care providers. The same would be true with brief screening tools for trauma, for substance abuse. So I think that it's really a matter of a toolbox in getting the word out there and making them accessible and easy to use.

Megan: Well, with that I'd just like to give a few reminders for some

upcoming webinars. So on May 11th, we're gonna be…in two days, we'll be having a webinar on What's Working in the Healthy Start Community to Support Breastfeeding. Then on the 16th, the Healthy Start COIN is gonna be sharing Capturing the Lessons Learned from the Field, Healthy Start Town Hall Webinar. On May 17th and 18th, there is a division supported, sponsored webinar on the Healthy Start Monitoring and Evaluation Database. There's two trainings. In May 25th Introduction to FASD, fetal alcohol spectrum disorders screening and diagnosis webinar. There's also a Healthy Living Series Webinar coming soon. And these are all on the Healthy Start EPIC Center's website on the training calendar. You can also go there to get recordings, webinars, and transcripts and slide presentations and all that good stuff.

I want to extend a huge thank you to all of the speakers today for all that you've shared. And it's clear, I could tell from your presentation in your voice, the passion you have for this topic. So thank you so much for your time and expertise and sharing. And thanks to you all for carving out time in your busy days to participate in this webinar. This concludes the webinar, and have a great rest of your day.