IMPROVING MATERNAL HEALTH: LEGISLATION TO ADVANCE PREVENTION EFFORTS AND ACCESS TO CARE

HEARING

BEFORE THE

SUBCOMMITTEE ON HEALTH

OF THE

COMMITTEE ON ENERGY AND COMMERCE
HOUSE OF REPRESENTATIVES

ONE HUNDRED SIXTEENTH CONGRESS

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[1] The legislation has been retained in committee files and also is available at https://docs.house.gov/Committee/Calendar/ByEvent.aspx?EventID=109919.

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[2] The report has been retained in committee files and also is available at https://docs.house.gov/meetings/IF/IF14/20190910/109919/HHRG-116-IF14-20190910-SD006.pdf.

IMPROVING MATERNAL HEALTH: LEGISLATION TO ADVANCE PREVENTION EFFORTS AND ACCESS TO CARE

TUESDAY, SEPTEMBER 10, 2019

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON HEALTH,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 10:01 a.m., in the John D. Dingell Room 2123, Rayburn House Office Building, Hon. Anna G. Eshoo (chairwoman of the subcommittee) presiding.

Members present: Representatives Eshoo, Engel, Butterfield, Matsui, Castor, Sarbanes, Luján, Schrader, Kennedy, Cárdenas, Welch, Ruiz, Dingell, Kuster, Kelly, Barragán, Blunt Rochester, Rush, Pallone (ex officio), Burgess (subcommittee ranking member), Upton, Shimkus, Guthrie, Griffith, Bilirakis, Long, Bucshon, Brooks, Mullin, Hudson, Carter, Gianforte, and Walden (ex officio).

Also present: Representatives Schakowsky and Soto.

Staff present: Jacquelyn Bolen, Counsel; Jeffrey C. Carroll, Staff Director; Waverly Gordon, Deputy Chief Counsel; Tiffany Guarascio, Deputy Staff Director; Stephen Holland, Health Counsel; Zach Kahan, Outreach and Member Service Coordinator; Josh Krantz, Policy Analyst; Una Lee, Chief Health Counsel; Aisling McDonough, Policy Coordinator; Meghan Mullon, Staff Assistant; Joe Orlando, Staff Assistant; Kaitlyn Peel, Digital Director; Tim Robinson, Chief Counsel; Kimberlee Trzeciak, Chief Health Advisor; Rick Van Buren, Health Counsel; Margaret Tucker Fogarty, Minority Staff Assistant; Caleb Graff, Minority Professional Staff Member, Health; Peter Kielty, Minority General Counsel; J. P. Paluskiewicz, Minority Chief Counsel, Health; Brannon Rains, Minority Legislative Clerk; Zack Roday, Minority Director of Communications; and Kristen Shatynski, Minority Professional Staff Member, Health.

Ms. ESHOO. The Subcommittee on Health will come to order.

Welcome back, everyone. I hope you had a productive August and that you have got some rest with your families, and we will roll up our sleeves and get back to work.

The Chair now recognizes herself for 5 minutes for an opening statement.

And the witnesses, please come to the table. And thank you each one for being here.

OPENING STATEMENT OF HON. ANNA G. ESHOO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

"The United States is the most dangerous place in the developed world to deliver a baby." That is a quote and the conclusion after major investigation by USA Today last year. Each year, about 700 American women die and 50,000 women are severely injured due to complications related to childbirth. If you are a Black woman in the United States, it is even more dangerous to give birth.

Black and American Indian and Alaska Native women are three to four times more likely to die from pregnancy-related causes. This is absolutely unacceptable. And what is more, it is preventable. The CDC estimates that more than 60 percent—more than 60 percent—of these deaths could be prevented.

Our witnesses will instruct us today that there is a clear way to save mothers' lives. We need to make sure that women have high-quality care and coverage before, during, and after their pregnancy. And the four bills we are considering today do just that.[1]

Congresswoman Kelly's MOMMA's Act uses standardized data to inform healthcare professionals about the best practices and protocols to manage a mother's care in an emergency, such as when a mother hemorrhages after birth. This data-driven approach was spearheaded in my district at Stanford, California's Maternal Quality Care Collaborative, which has reduced severe health problems from pregnancy-related hemorrhages by 21 percent to date and has contributed to reducing the maternal mortality rate in California by a whopping 55 percent.

Representative Engel's Quality Care for Moms and Babies Act also works to improve maternal care through data by using care surveys, quality measures, and perinatal quality collaboratives.

Both Congresswoman Kelly's legislation and Congresswoman Pressley's Healthy MOMMIES Act recognizes that to truly make progress, women must be able to get medical care when they need it.

Women are more likely to die of a pregnancy-related condition in the weeks following birth than during pregnancy or delivery, but many American mothers lack health insurance during that critical postpartum period. Every year, hundreds of thousands of mothers are kicked off Medicaid only 2 months after giving birth. The MOMMA'S Act and the Healthy MOMMIES Act extend Medicaid for a full year postpartum. These bills make sure the Medicaid safety net is there for women at one of the most vulnerable times in their lives, and this extension makes sense. That is why State legislatures in California, New Jersey, Texas, South Carolina, and Illinois are seriously considering measures to extend Medicaid for 1 year for eligible new mothers.

Finally, the Maternal CARE Act introduced by Congresswoman Alma Adams addresses the insidious way racism kills Black mothers. The bill funds implicit bias training programs for health professionals. As Nina Martin describes in her investigative series "Lost Mothers," African-American mothers repeatedly report being

[1] The legislation has been retained in committee files and also is available at https://docs.house.gov/Committee/Calendar/ByEvent.aspx?EventID=109919.

devalued and disrespected by medical providers who did not take their medical concerns seriously.

I will conclude as I began: The United States is the most dangerous place in the developed world to deliver a baby. Shame on us. I believe a high maternal death rate is a reflection of how much a society values women. As the first chairwoman of this subcommittee, I think it is time we reverse this by making a healthcare system that better cares for women.

[The prepared statement of Ms. Eshoo follows:]

PREPARED STATEMENT OF HON. ANNA G. ESHOO

"The U.S. is the most dangerous place in the developed world to deliver a baby." This quote was the conclusion of a major investigation by USA Today last year.

Each year, about 700 American women die and 50,000 women are severely injured due to complications related to childbirth. If you're a Black woman in the U.S., it is even more dangerous to give birth. Black women are three to four times more likely to die from childbirth than White women.

This is unacceptable, and what's more, it's preventable. The CDC estimates more than 60% of these deaths could be prevented.

Our witnesses will instruct us today that there is a clear way to save mothers' lives.

We need to make sure women have high quality care and coverage before, during, and after their pregnancy. The four bills we're considering today do just that.

Congresswoman Kelly's MOMMA's Act (H.R. 1897) uses standardized data to inform healthcare professionals about the best practices and protocols to manage a mother's care in an emergency, such as when a mother hemorrhages after birth.

This data-driven approach was spearheaded in my district. Stanford's California Maternal Quality Care Collaborative has reduced severe health problems from pregnancy-related hemorrhages by 21% and has contributed to reducing the maternal mortality rate in California by 55%.

Representative Engel's Quality Care for Moms and Babies Act (H.R. 1551) also works to improve maternal care through data by using care surveys, quality measures, and perinatal quality collaboratives.

Both Congresswoman Kelly's MOMMA's Act (H.R. 1897) and Congresswoman Pressley's Healthy MOMMIES Act (H.R. 2602) recognize that to truly make progress, women must be able to get medical care when they need it.

Women are more likely to die of a pregnancy-related condition in the weeks following birth than during pregnancy or delivery, but many American mothers lack health insurance during that critical postpartum period.

Every year, hundreds of thousands of mothers are kicked off Medicaid only 2 months after giving birth.

The MOMMA's Act and the Healthy MOMMIES Act extend Medicaid for a full year postpartum. These bills make sure the Medicaid safety net is there for women at one of the most vulnerable times in their lives.

This extension makes sense. That's why State legislatures in California, New Jersey, Texas, South Carolina, and Illinois are seriously considering measures to extend Medicaid for 1 year for eligible new mothers.

Finally, the Maternal CARE Act (H.R. 2902), introduced by Congresswoman Alma Adams, addresses the insidious way racism kills Black mothers. The bill funds implicit bias training programs for health professionals.

As Nina Martin describes in her investigative series "Lost Mothers," African-American mothers repeatedly report being devalued and disrespected by medical providers who did not take their medical concerns seriously.

I'll conclude as I began. The United States is the most dangerous place in the developed world to deliver a baby.

I believe a high maternal death rate is a reflection of how much a society values women. As the first chairwoman of the Health Subcommittee, I think it's time we reverse this by making a healthcare system that better cares for women.

I yield the remainder of my time to Representative Engel, the author of H.R. 1551, the Quality Care for Moms and Babies Act.

Ms. ESHOO. I now would like to yield the remainder of my time to Representative Engel, the author of H.R. 1551, the Quality Care for Moms and Babies Act. Oh, he is not here. All right.

Well, the Chair will now recognize Dr. Burgess, the ranking member of our subcommittee, for 5 minutes for his opening statement.

OPENING STATEMENT OF HON. MICHAEL C. BURGESS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. BURGESS. Thank you, Chairwoman Eshoo. Thanks for the recognition.

And I certainly appreciate that our Health Subcommittee is revisiting the issue of maternal mortality. Certainly we addressed this last year when we held the hearing on Jaime Herrera Beutler's H.R. 1318, the Preventing Maternal Deaths Act, which was signed into law last December. And whether the people realize it or not—I don't know how many people do realize it—unusual for the House of Representatives to pass a stand-alone bill dealing with maternal mortality, but it did indeed happen in the last Congress.

And now we are here today to see if we can build on that success, build on that progress, utilize the data that is going to become available because of getting H.R. 1318 across the finish line.

By authorizing grants and allowing States to establish Maternal Mortality Review Committees, such as the one that Texas established back in 2013, States will be able to clearly identify the causes of maternal mortality and use that data to inform solutions. Given the robust bipartisan discussions that occurred last year, we do want to continue those robust bipartisan discussions. Unfortunately, today the bills that we have before us are all on the majority side. Our staffs have spent some time in preparation for this hearing. So it is unfortunate that that could not have been a little more expansive. Dr. Bucshon on this committee and Representative André Carson, a member of the majority, introduced a bipartisan bill, H.R. 4215, the Excellence in Maternal Health Act, along with a number of Energy and Commerce members, and I believe that a version of this language could become law and be signed by the President, and we should discuss the merits of such a policy at this hearing.

I think it is worthwhile to have a productive dialogue about the ideas put forth in all of the bills before us today, but there certainly are some questions about how implementation would occur and whether the bills would actually make a difference.

I in my former life did practice obstetrics and gynecology. Now as a Member of Congress, I want you know that addressing maternal mortality is one of my top priorities. And that is why I advocated, along with Representative Herrera Beutler last year, for the passage of H.R. 1318. Over the course of this year, I have been carefully looking at the right next step to build on the success we had last year. I have engaged with the Congressional Budget Office on several policy options related to Medicaid coverage of pregnancy, and I am committed to finding a way to address this issue, but we do need to be tactful and inclusive in this approach.

As we move through the discussion of these bills, I have some questions that I would like our witnesses to have in mind.

First, what is the Centers for Disease Control and Prevention already doing to aid States process data through Maternal Mortality

Review Committees? And do these bills we have before us today, are they additive or are they simply duplicative of existing efforts?

Secondly, more than 40 percent of the births in the United States are covered by Medicaid. What tools do States need to address the unique needs of their own Medicaid populations?

Thirdly, some States are already submitting 1115 waivers to expand Medicaid coverage for 1 year postpartum without any intervening Federal legislation. How would these existing State efforts be impacted by a Federal law, and is there any danger of hampering State innovation?

Fourthly, how can we support hospitals' existing efforts to coordinate care and maintain access to physicians throughout the delivery?

Fifth, are any States employing innovative maternity care models in Medicaid that would be worthy of exploring at a demonstration at a Federal level?

And then, finally, what are the main barriers to women receiving pre- and postnatal care? And what are the best practices that can be deployed to address maternal mortality and severe morbidity, the so-called near misses that occur when someone actually survives but has a very untoward event?

Now, I do want to spend a moment and give a special thanks and a special Texas welcome to Dr. David Nelson, the chief of obstetrics at Parkland Hospital.

Chairwoman, you said, quoting from USA Today, that the United States is the most dangerous place in the world to have a baby. I would submit that Parkland Hospital is probably the safest place in the world to have a baby. It is because of the tremendous leadership, the clinical staff, and the dedicated staff of UT Southwestern and the residents and house officers and the nurses who all provide care to the medically indigent in Dallas County, Texas.

So, as a former Parkland resident, I am looking forward to hearing about the practices that your team employs to ensure safe delivery for both mothers and babies in Dallas, down in Texas.

And I yield back my time.

[The prepared statement of Mr. Burgess follows:]

PREPARED STATEMENT OF HON. MICHAEL C. BURGESS

Thank you, Chairwoman Eshoo. I appreciate that our Health Subcommittee is revisiting the issue of maternal mortality, one that we addressed last year when we held a hearing on Rep. Jaime Herrera Beutler's H.R. 1318, the Preventing Maternal Deaths Act, which President Trump signed into law in December. It was critical that we work in a bipartisan fashion to get H.R. 1318 across the finish line because stakeholders continued to tell us that there was a lack of data about why these maternal deaths were occurring, and that it is difficult to address problems that have yet to be clearly identified.

By authorizing grants allowing States to establish maternal mortality review committees, such as the one that Texas established in 2013, States will be able to clearly identify the causes of maternal mortality, eventually using that data to inform solutions.

Given the robust bipartisan discussions that occurred last year, I am frustrated that the majority did not collaborate with us much in preparation of this hearing. For example, our staffs had spoken months ago about building upon language included in the bipartisan Senate HELP Committee's healthcare costs package to continue this subcommittee's commitment to addressing the issue of maternal mortality. Unfortunately, you decided you did not want to move forward on this language together. In fact, you even tried to add a bill at the last minute on Friday

afternoon and still refused to include the HELP language as introduced by Dr. Bucshon.

Dr. Bucshon and Rep. Andre Carson introduced a bipartisan bill, H.R. 4215, the Excellence in Maternal Health Act of 2019, along with me and a number of other Energy and Commerce members. I believe that a version of this language could become law, and that we should discuss the merits of such a policy at this hearing. I think it is worthwhile to have a productive dialogue about the ideas put forth in the four bills before us today, but I have a lot of questions about how these policies would be implemented and if they would actually make a difference.

As an OB/GYN and a Member of Congress, addressing maternal mortality is one of my top priorities, which is why I advocated alongside Rep. Herrera Beutler last year for passage of H.R. 1318. Over the course of this year, I have been carefully looking for the right next step to build on the successes of H.R. 1318. I have engaged with CBO on several policy options related to Medicaid coverage of pregnancy, and I am committed to finding a way to address this issue, but we must be tactful in our approach. I do wish that this hearing had been planned in advance such that agencies that would be on the front lines of implementing the policies before us today.

As we move through our discussion of these bills, I have some questions that I would like our witnesses and other Members to have in mind.

1. What is the Center for Disease Control and Prevention already doing to aid States process data through maternal mortality review committees as a result of H.R. 1318, and do these other bills duplicate existing efforts?

2. More than 40 percent of births in the United States are covered by Medicaid. What tools do States need to address the unique needs within their own Medicaid populations?

3. States are already submitting 1115 waivers to expand Medicaid coverage to one-year post partum without Federal legislation. How would these existing State efforts be impacted by a Federal law and would State innovation be hampered?

4. How can we support hospitals' existing efforts to coordinate care and maintain access to physicians throughout delivery?

5. Are any States employing innovative maternity care models in Medicaid that would be worthy exploring in a demonstration or at a Federal level?

6. What are the main barriers to women receiving pre- and post-natal care, and what are best practices that can be deployed to address maternal morbidity and mortality?

I would like to give a special Texas welcome to Dr. David Nelson, the Chief of Obstetrics at Parkland Hospital. As a former Parkland resident, I look forward to hearing more about the practices he and his team employ to ensure safe delivery for both mothers and babies in Dallas.

Thank you, and I yield back.

Ms. ESHOO. The Chair thanks the ranking member for his comments. Let me just add something to them. The committee is hearing four bills today, and together they contain all of the provisions in the Senate health bill and Representative Bucshon's bill, but they also go beyond those provisions to include extending Medicaid coverage for post partum women. So I wanted to add that to the conversation.

The Chair is now pleased to recognize the chairman of the full committee, Mr. Pallone, for his 5 minutes for his opening statement.

OPENING STATEMENT OF HON. FRANK PALLONE, Jr., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. PALLLONE. Thank you, Madam Chair.

Today, we are examining the often tragic reality of the maternal health system in our Nation and a number of policies that could dramatically improve health outcomes for new mothers and their children. Every year, about 700 women die here in the United States from a pregnancy-related condition, and thousands more

face severe maternal morbidity. That is simply disgraceful. And when you compare these outcomes to other countries around the world, the United States is near the bottom. We are also the only industrialized country in the world with a rising maternal death rate.

In a nation as wealthy as ours, these statistics are simply shocking and inexcusable, but I am hopeful that we can begin to turn the tide to improve maternal health. The Centers for Disease Control and Prevention estimates that 60 percent of maternal deaths in the U.S. are preventable, and the legislation we are discussing today is a strong step forward.

Now, a number of the bills that we have today will strengthen prevention efforts that already exist, including policies that follow up on the Preventing Maternal Deaths Act, which was enacted last year. This new law improved data collection and helped to expand Maternal Mortality Review Committees to all 50 States. The legislation also authorizes and strengthens the Alliance for Innovation on Maternal Health and Safety, or the AIM program. This program helps physicians and health systems implement evidence-based practices that have been shown to improve patient outcomes when performed in a healthcare setting but have not yet been implemented nationwide.

Maternal mortality and morbidity are problems that affect women throughout our country, but especially in African-American and Native American communities, where women are three times as likely to die due to pregnancy-related conditions as White women. The bills also offer a number of proposals to reduce health disparities along racial, ethnic, and cultural lines.

We are also going to be looking at ways to improve health coverage for new mothers. According to the CDC, one-third of all pregnancy-related deaths occur between 1 week and 1 year post partum. And while Medicaid and the Children's Health Insurance Program cover more than half of all births in the U.S., coverage for some new mothers ends just 60 days after delivery. That is why I am glad we will be reviewing additional proposals to extend that coverage to 1 year after delivery, extending access to regular physician checkups and other health services that help women and their healthcare providers detect and treat health issues such as high blood pressure and heart disease, two of the most common causes of pregnancy-related deaths. It is my sincere hope to work with our Republican colleagues to enact a bipartisan proposal to extend this vital health coverage for new mothers.

Our witnesses today offer views from diverse backgrounds, and I am confident that their experiences and expertise will help us all learn more about the problems we are facing and the solutions that will make a real difference. I thank them all for being here.

And I also want to recognize the leadership of so many bipartisan Members of the House who testified on this important topic at our recent Member Day hearing, including several members of the Congressional Caucus on Maternity Care and the Black Maternal Health Caucus.

So I have a couple of minutes left. I would like to yield that to the woman from Chicago, Ms. Kelly, the author of the H.R. 1897, the MOMMA's Act.

[The prepared statement of Mr. Pallone follows:]

PREPARED STATEMENT OF HON. FRANK PALLONE, JR.

Today we are examining the often tragic reality of the maternal health system in our Nation, and a number of policies that could dramatically improve health outcomes for new mothers and their children.

Every year, about 700 women die here in the United States from a pregnancy-related condition, and thousands more face severe maternal morbidity. That's simply disgraceful. And when you compare these outcomes to other countries around the world, the United States is near the bottom. We are also the only industrialized country in the world with a rising maternal death rate.

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A number of the bills will strengthen prevention efforts that already exist, including policies that follow up on the Preventing Maternal Deaths Act, which was enacted last year. This new law improved data collection and helped to expand Maternal Mortality Review Committees to all 50 States. The legislation also authorizes and strengthens the Alliance for Innovation in Maternal Health and Safety, or the AIM program. This program helps physicians and health systems implement evidence-based practices that have been shown to improve patient outcomes when performed in a healthcare setting but have not yet been implemented nationwide.

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Our witnesses today offer views from diverse backgrounds and I am confident that their experiences and expertise will help all of us learn more about the problems we are facing and the solutions that will make a real difference. I thank them all for being here.

I also want to recognize the leadership of so many bipartisan Members of the House who testified on this important topic at our recent Member Day hearing, including several members of the Congressional Caucus on Maternity Care and the Black Maternal Health Caucus.

I'd now like to yield the remainder of my time to Representative Kelly, the author of H.R. 1897, the MOMMA's Act.

Ms. KELLY. Thank you, Mr. Chair.

Chairman Pallone, Chairwoman Eshoo, and Ranking Member Burgess, thank you for allowing me to make this brief opening statement.

Like you, I am shocked by our Nation's growing maternal mortality crisis. While losing 700 to 900 new moms each year is devastating, this crisis, like too many others, takes a disproportionate toll on communities of color. Nationwide, Black mothers die three to four times the rate of White mothers. In my home State of Illinois, that disparity climbs to six times. In the State of Washington,

American Indian moms die eight times the rate of their White counterparts.

It is clear that race is playing a role in these deaths. That is why my proposal, the MOMMA's Act, which I will discuss in depth later, includes provisions to ensure cultural competency training to ensure all moms and families are listened to during their childbirth journey.

However, this provision will only take us so far. It is imperative that we continue investing in diversifying the provider pipeline. The racial disparities underlying the shocking maternal mortality statistics make an already tragic situation more tragic. However, these challenges are not insurmountable. Today's hearing and the commitment from this subcommittee give me great hope for a future where all mamas get the chance to be mamas. I thank the chairwoman for the time and appreciate your efforts in addressing the crisis.

I yield back.

Ms. ESHOO. We thank the gentlewoman for her work on her important legislation.

I now would like to recognize the ranking member of the full committee, my friend Mr. Walden, for his 5 minutes for an opening statement.

OPENING STATEMENT OF HON. GREG WALDEN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON

Mr. WALDEN. Thank you, Madam Chair. And thanks for having this very important hearing.

I appreciate all the witnesses who are here to share your stories and to comment on the legislation before us.

This critical issue of maternity morbidity and mortality, it is an issue that is quite literally a matter of life and death and for all women across the country. It is a difficult topic. It is one that is close to my heart.

Despite massive innovation in healthcare and advancements in technology, recent reports have indicated that the number of women dying due to pregnancy complications has increased in recent years. The effects of such a tragedy on any family are impossible to comprehend.

This hearing builds off the important work of our committee in the last Congress under the leadership of Dr. Burgess and the Health Subcommittee. Last year, as you have heard, the President signed into law H.R. 1318, the Preventing Maternal Deaths Act. This important law, led by Representative Jaime Herrera Beutler of Washington State and Diana DeGette of Colorado, seeks to improve data collection reporting around maternal mortality and develop systems at the local, State, and national levels in order to better understand the burden of maternal complications.

These efforts include identifying the reasons for disparity in maternal care, health risks that contribute to maternal mortality, and clinical practices that would improve health outcomes for moms and babies.

We have continued to lead the way this Congress as well—and on a bipartisan basis, I would add—sending letters earlier this year to six Health and Human Service agencies where we asked for the

latest information on what they are doing to combat maternal mortality. I hope we finish the briefings requested in those letters very soon.

Unfortunately, I do have to say I am dismayed at the way that this legislative hearing today came together. For an issue that is absolutely bipartisan, I am just disappointed the majority would not allow consideration of Dr. Bucshon's bill, H.R. 4215, the Excellence in Maternal Health Act. It is a bipartisan bill. It is led by Dr. Bucshon. It serves as the House companion to the maternal mortality provisions in Senator Alexander and Senator Murray's bipartisan Senate legislation, Lowering Health Care Costs Act.

So I strongly support the bipartisan language in this bill as it demonstrates our commitment to further addressing maternal mortality, just as we did in a bipartisan way last Congress. The bill authorizes grants to identify, develop, and disseminate maternal health quality best practices, supports training at health profession schools to reduce and prevent discrimination and implicit biases, enhances Federal efforts to establish or support perinatal quality collaboratives, and authorizes grants for establishing and/or operating innovative evidence-informed programs that deliver integrated services to pregnant and post partum women.

The language in this bill passed the United States Senate Committee on Health, Education, Labor, and Pensions as part of Senator Alexander and Senator Murray's bipartisan package, and so I truly don't understand why we wouldn't have had that on the docket today for consideration as well. I just hope we will. I hope there will be another hearing where we can hear from Dr. Bucshon on his legislation.

Some of today's bills would expand Medicaid and CHIP coverage for pregnant and postpartum women from 60 days to 1 year. This is a significant policy change and one, of course, we need to carefully consider before we advance such a policy through the committee. Importantly, several States have already undertaken such initiatives. And we should gain a greater understanding about the State experiences, as that will be critical as we move forward.

Given the huge impact some of these bills will have on HHS, I would also note that HHS is not here before us today to discuss what they are already doing to address maternal mortality—we would benefit from hearing from them—nor to provide their thoughts on the incomplete list of bills before us today.

Given this absence, I call on the majority to schedule a second legislative hearing before moving to a markup. And I strongly urge the majority to include H.R. 4215 in such a hearing. It is a good-faith, bipartisan bill with Senate support that deserves consideration in the House.

Despite my concerns about this process, I have no concerns about our distinguished witnesses today and our panel of experts. I want to thank you all again for being here today to talk about the bills before us, to share your stories and your expertise. I know we will learn much about the landscape of maternal mortality and care and what more we can do to improve the health outcomes in expectant and new mothers across the country. That is a goal we all share. So thank you for being here.

Madam Chair, with that, I yield back.

[The prepared statement of Mr. Walden follows:]

PREPARED STATEMENT OF HON. GREG WALDEN

The critical issue of maternal morbidity and mortality—an issue that is literally a matter of life and death for women all across the country—is a difficult topic, and one that is close to my heart.

Despite massive innovation in healthcare and advancements in technology, recent reports have indicated that the number of women dying due to pregnancy complications has increased in recent years. The effects of such a tragedy on any family are impossible to comprehend.

This hearing builds off the important work of our committee in the last Congress under the leadership of Dr. Burgess and the Health Subcommittee. Last year, the President signed into law H.R. 1318, the Preventing Maternal Deaths Act. This important law, led by Representatives Jaime Herrera Beutler (R–WA) and Diana DeGette (D–CO) seeks to improve data collection and reporting around maternal mortality, and develop systems at the local, State, and national level in order to better understand the burden of maternal complications. These efforts include identifying the reasons for disparities in maternal care, health risks that contribute to maternal mortality, and clinical practices that improve health outcomes for moms and babies.

We have continued to lead the way this Congress as well—and on a bipartisan basis, I might add—sending letters earlier this year to six HHS agencies asking for the latest information on what they are doing to combat maternal mortality. I hope that we finish the briefings requested in those letters soon.

Unfortunately, I'm dismayed at the way the majority handled our legislative process to get to this hearing. For an issue that is absolutely bipartisan, I'm disappointed that the majority would not allow consideration of H.R. 4215, the Excellence in Maternal Health Act, a bipartisan bill led by Dr. Bucshon that serves as the House companion to the maternal mortality provisions in Senator Alexander and Senator Murray's bipartisan Lowering Health Care Costs Act. I strongly support the bipartisan language in this bill as it demonstrates our commitment to further addressing maternal mortality. The bill authorizes grants to identify, develop, and disseminate maternal health quality best practices, supports training at health professions schools to reduce and prevent discrimination and implicit biases, enhances Federal efforts to establish or support perinatal quality collaboratives, and authorizes grants for establishing and/or operating innovative evidence-informed programs that deliver integrated services to pregnant and post partum women. The language in this bill passed the U.S. Senate Committee on Health, Education, Labor, and Pensions as a part of Senator Alexander and Senator Murray's bipartisan package. I truly don't understand why the majority refused to include H.R. 4215 in today's hearing.

Regarding the four bills that we ARE reviewing today, only one of the bills has a Republican cosponsor. I am also concerned that despite coming off of a six week district work period we didn't have witnesses agreed to until last Thursday and Members weren't able to review testimony until yesterday. Such a broken process is disrespectful of this important issue.

Some of today's bills would expand Medicaid and CHIP coverage for pregnant and post partum women from 60 days to one year. This would be a significant policy change and one we need to carefully consider before we advance such a policy through the committee. Importantly, several States have already undertaken such initiatives and understanding that State experience will be critical as we move forward.

Given the huge impact that some of these bills will have on HHS, I would also note that HHS is not here today to discuss what they have already been doing to address maternal mortality, nor to provide their thoughts on the incomplete list of bills before us today. Given this absence, I call on the majority to schedule a second legislative hearing before moving to a markup. And I strongly urge the majority to include H.R. 4215 in such a hearing. It's a good faith, bipartisan bill that deserves consideration, too.

Despite my concerns about this process, I have no concerns about our distinguished witnesses here today. I'd like thank our witnesses for being here and sharing your stories and expertise. I know we will learn much about the landscape of maternity care and what more we can do to improve the health outcomes in expectant or new mothers across the country.

Ms. ESHOO. The gentleman yields back.

It is always a pleasure to be joined by former Members of Congress, and this morning former Congressman Phil Gingrey is with us. So welcome, and thank you for being here.

I want to remind Members that, pursuant to committee rules, all Members' written opening statements will be made part of the record.

I now would like to introduce the witnesses for today's hearing, beginning with Ms. Wanda Irving, the mother of Shalon Irving. Thank you very much for being here. Your very moving piece in ProPublica—anyone that has read that, I think you are really not the same person after you read it. So thank you very much for being here today.

Dr. Patrice Harris is president of the Board of Trustees of the American Medical Association. Thank you to you for being here.

Dr. Elizabeth Howell, director of the Blavatnik Family Women's Health Research Institute at the Icahn School of Medicine at Mount Sinai, welcome to you and thank you.

Dr. David Nelson, assistant professor of obstetrics and gynecology at the University of Texas Southwestern Medical Center, thank you to you for being here.

And Ms. Usha Ranji, the associate director of women's health policy at the Kaiser Family Foundation, our thanks to you.

We are very grateful because this is—as the ranking member of the full committee said—this is a very important hearing. And we look forward to your testimony. So, at this time, the Chair will recognize each witness for 5 minutes to provide their opening statements. If you are not familiar with the light system, green obviously is go. When you see that the light has turned yellow, you will have 1 minutes remaining. And guess what? When it turns red, your time is up.

So I will begin by recognizing the very distinguish Ms. Wanda Irving for your 5 minutes of testimony.

You need to turn the mic on. That is it. And get close to it. We don't want to miss a word. We have some very energetic people outside of our hearing room. So get the microphone even closer so we don't miss a word. Thank you.

STATEMENTS OF WANDA IRVING, MOTHER OF DR. SHALON IRVING; PATRICE HARRIS, M.D., PRESIDENT, BOARD OF TRUSTEES, AMERICAN MEDICAL ASSOCIATION; ELIZABETH A. HOWELL, M.D., DIRECTOR, BLAVATNIK FAMILY WOMEN'S HEALTH RESEARCH INSTITUTE, ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI; DAVID NELSON, M.D., CHIEF OF OBSTETRICS, PARKLAND HEALTH AND HOSPITAL SYSTEM; AND USHA RANJI, ASSOCIATE DIRECTOR, WOMEN'S HEALTH POLICY, KAISER FAMILY FOUNDATION

STATEMENT OF WANDA IRVING

Ms. IRVING. Good morning, Chairwoman Eshoo, Ranking Member Burgess, distinguished members of the committee. Thank you for the opportunity to address you.

New data released from the CDC demonstrates that pregnancy-related deaths for Black women with at least a college degree are five times higher than that of a White woman with similar edu-

cation. Shalon MauRene Irving had a dual titled Ph.D. in sociology and gerontology and a master of science, both summa cum laude, from Purdue University and earned before the age of 25. By 26, she was a college professor at Hofstra University but decided, after watching her older brother who suffered numerous indignities during treatment for multiple sclerosis, that she wanted to work on the front lines fighting for health equity. She earned a master of public health from Johns Hopkins, also summa cum laude, and became certified as a health education specialist while being a weekend caregiver for her brother, who was then in a wheelchair.

She started her public health career as a Kellogg Fellow, working with pregnant women at Healthy Start in Baltimore. From there, she was hired as a consultant to the CDC, working on former First Lady Michelle Obama's Let's Move! Initiative. She went on to be accepted into the globally renowned Epidemic Intelligence Service and was quickly promoted to lieutenant commander.

As a well-respected epidemiologist at the CDC, she made major contributions to several scientific books written by colleagues and wrote various articles published in scientific and medical journals. She was dedicated and committed to racial equality and health equity. On her Twitter profile, Shalon said: "I see inequity wherever it exists, call it by name, and work hard to eliminate it. I vow to create a better Earth."

She believed in action over words and launched a consulting firm specializing in inclusivity training. This is the picture of Shalon Irving the professional, but she was so much more than that. She was my only daughter, born between two brothers that she idolized. Shalon was every mother's prayer and the one few of us are lucky enough to receive.

An unexpected pregnancy at 36 only added to the fullness of her life. She was so excited to become a mother. On January 3rd, Shalon underwent a planned c-section and gave birth to a beautiful baby girl she named Soleil Meena Daniele. Shalon thought Soleil was her greatest accomplishment. The 3 weeks that followed Soleil's birth should have been filled with joy and happiness, but it wasn't.

Instead, Shalon's general state of health steadily declined, while her blood pressure rose. She experienced leg swelling, decreased urine output, weight gains, and headaches. But despite repeated visits to her healthcare providers during this period, her complaints were not adequately addressed.

Shalon suffered cardiac arrest at home on the night of January 24th, 2017, 21 days after the birth of her daughter and just a few hours after her last trip to her health provider. My beautiful, vibrant, brilliant daughter was officially declared brain dead on Thursday, January 26th. Believe me, there is nothing more heartwrenching than seeing your child connected to life support. On January 28th, life support was removed. After reading her medical directive, the handwritten last line shattered my heart: "Mommy, I will fight hard, but if there is no hope, please let me go."

Shalon fought hard. She did what she was supposed to do. It was the medical profession that let her down. She was a 36-year-old woman of color who went to healthcare workers again and again in distress and was not properly treated. Imagine the many geron-

tology breakthroughs, epidemiology victories, and social advances that Shalon could have generated if only her medical providers had listened to her and addressed her cries for help.

Shalon's daughter, Soleil, is transitioning into a little girl. She is 31 months old now with a smile every bit as brilliant as her mother's. Soleil is fearless and determined like her mother. She constantly amazes me with her rapidly expanding vocabulary, her capacity for learning French, her athleticism as a gymnast, and her love for art and ballet. But there are no words in the English language to adequately portray the pain I feel when Soleil looks up at me and asks, "Where's my mommy, Nona? Why can't I see her?" or cries, "I want my mommy" while clutching a picture of Shalon.

The loss of my daughter has earned me the right to demand the transformation of the healthcare system. I ask you—no, I implore you—to take three points from my words today. Not every maternal mortality is because of lack of insurance nor access to care, poverty, or lack of education. The dialogue needs to be reframed so it widens the lens to include the insured, those with access, and the educated.

Most pregnancy-related deaths can be prevented. According the latest CDC Morbidity and Mortality Weekly Report, further identification and evaluation of factors contributing to racial and ethnic disparities are crucial to inform and implement prevention strategies that will effectively reduce disparities in pregnancy-related mortality.

Quality of care plays a pivotal role in pregnancy-related deaths and associated racial disparities. It is imperative that more aggressive strategies to break down racial bias and prejudice be deployed now. Sending medical folks to cultural sensitivity or implicit bias training is not going to fix the problem without a redesign of medical school curricula. Post partum care must be redefined and optimized as well. Healthcare professionals must be accountable.

The reduction of preventable maternal death among Black women is a national disgrace and has become an urgent national priority. To paraphrase a line from Abraham Lincoln, it is the cause for which my daughter gave her last measure of devotion.

Thank you.

[The prepared statement of Ms. Irving follows:]

Statement of Wanda Irving
House Energy & Commerce Committee Health Subcommittee Hearing on Improving Maternal Health
September 10, 2019

Chairwoman Eshoo, Ranking Member Burgess, Chairman Pallone, Ranking Member Walden, and Members of the Committee, thank you for the opportunity to sharing my story with such a prestigious group.

Lately, I've been called brave and courageous a lot. I'm not sure I agree. I am just a grieving mother, trying to move forward by putting one foot in front of the other and taking it one day at a time. What I want you to know as I tell Shalon's story is that I relive Shalon's death every time I share her story. It is painful, and yes – it would be easier not to do this, to sidestep this fresh pain a few times a month. But if my daughter had to leave me, I've got to find some meaning in her death, it must help someone else: save someone else's daughter or sister or wife. That's what my daughter would have wanted.

I am here today to put a face to what decades of research has shown—black women aren't being seen or heard when it comes to their health—especially during and after pregnancy. I want to share with you a remarkable woman, my daughter Dr. Shalon MauRene Irving, who became a maternal mortality statistic and to let you know what the aftermath of her preventable death has been like for her child and me.

Shalon was my only daughter, born between two brothers that she adored. She was an exceptional child. She loved to learn. She was generous, kind, passionate and a staunch champion for equity.

Shalon grew into a strong, vibrant, beautiful woman.
Shalon was fearless. She lived her truth each and every day. She never lost sight of who she was or what she wanted, and she never failed to answer the call when her expertise was needed. She was funny. Her smile was luminous and her melodic laughter touched your heart. She was readily accepting of everyone she met and fiercely loyal to her friends who told me Shalon had a way of making your day brighter and your load suddenly seem lighter.

Shalon was smart
She'd skipped two grades before high school and earned a bachelor's degree, a master's degree and a dual titled PhD in Sociology and Gerontology—the first student to do so at Purdue University—all Summa cum Laude. By the age of 25 she was a college professor at Hofstra University, but decided she wanted to be on the front line working to eliminate racial health injustices. So, she went on to acquire an MPH from Johns Hopkins University—also Summa Cum Laude— while being a weekend caretaker for the older brother she so adored, who was wheelchair bound as a result of multiple sclerosis—and began her career

working to end health disparities. Shalon had an impressive career path that led to her work as a Lt. Commander in the prestigious Epidemic Intelligence Service of the U.S. Health Service, and a well-respected epidemiologist at the Centers for Disease Control and Prevention.

Shalon was well travelled
Over the course of 10 years, we had vacationed extensively throughout the Caribbean and traveled to over 20 foreign countries on three continents. In fact, Shalon wanted to share her love of travel right away with her child. We had just made the final payments for a 2-week vacation to Dubai, which was to begin 5 days after Shalon died.

Shalon was a brilliant writer and published author
She could take even the most complex scientific jargon and rewrite it so a seventh grader could understand it. She was an accomplished author—with major contributions to several scientific books written by colleagues, various published articles in medical journals, plus co-authored an introspective self-help book called "**Beautifully Bare and Undeniably You**" that was published posthumously in 2018

Shalon was the epitome of a modern-day renaissance woman,
She was always thinking, "what's next" for her. She owned her own home, was an avid gardener, a skilled photographer, and a talented chef and volunteered at several organizations to help young girls become the phenomenal women they were meant to be. Shalon had just launched a consulting firm, called Inclusivity Standard, LLC, to help first-generation college girls prepare for college and enable businesses and schools to embrace inclusivity to assist organizations in becoming more inclusive.

Shalon was a distinguished scientist
She was a Lt. Commander in the globally recognized Epidemic Intelligence Service and a well-respected Epidemiologist at the Centers for Disease Control and Prevention in Atlanta, Georgia.

Most importantly, Shalon had a passion for ending all health disparities
She was dedicated and committed to racial equality and health equity. According to her Twitter profile, Shalon said, *"I see inequity wherever it exists, call it by name, and work hard to eliminate it. I vow to create a better earth".* Throughout her career, Shalon passionately advocated for a participatory approach to all research so that communities could immediately benefit from the research.

Yet, this vibrant, beautiful, intelligent woman fell victim to maternal mortality exemplifying that maternal mortality can happen to any woman giving birth.

According to the CDC over 700 women die every year from causes related to pregnancy and childbirth in the United States. Almost 70% of those deaths are

preventable. What's worst, the CDC reports that black mothers in the U.S. die at three to four times the rate of white women, making it one of the widest of all racial disparities in women's health. Let me spell this out another way: a black woman is 22 percent more likely to die from heart disease than a white woman, 71 percent more likely to perish from cervical cancer, but 243 percent more likely to die from pregnancy- or childbirth-related causes than a white woman. Sure, some of it has to do with lack of insurance, no access to medical care, insufficient financial well-being. But, unfortunately, it also has to do with the appalling way black women are—or are not—attended to or listened to. Which was exactly the case for Shalon. She did not live in poverty. She was not uneducated. She was not complacent about her health. She had access to the kind of healthcare that should have saved her life, but she ended up a maternal mortality statistic. You tell me why.

Even though her pregnancy was unexpected, Shalon was overjoyed. She knew her pregnancy was high risk but, at that time, I did not know that she was among the country's most vulnerable pregnancy population. I never thought for a moment that as a black woman my daughter was three to four times more likely to die than a white woman from birth related complications, largely attributed to institutional racism and the stress that our bodies endure because of it.

Shalon did not take her pregnancy lightly. She did everything right. She rushed back from a deployment in Puerto Rico and immediately went to her GYN/OB doctor. She got tested for the Zika virus, which came back negative. She followed her OB's instructions to the letter. She never missed an OB appointment. Several months before she became pregnant, Shalon had discovered she had factor v leiden and took a pill daily to prevent any blood clots. But now that she was pregnant, her hematologist prescribed 2 painful shots into her stomach each day to keep her blood from clotting and protect her baby. Though her stomach resembled a black and blue pincushion, she never complained—not once. Shalon spent days creating a highly detailed birth plan with everything from who could be in the delivery room to the type of music and conversations that could go on in the delivery room. The plan included several tasks for me, starting with—sterilizing her hospital room, bed, chairs and bathroom with disinfectant. Shalon gave a lot of thought to preparing for her baby, but trusted that her doctors to look out for *her* in the days and weeks after her baby arrived.

On January 3, 2017 Shalon underwent a caesarean and gave birth to a beautiful baby girl she named Soleil Meena Daniele. In her journal entry on the morning of Soleil's birth, she wrote:
Good morning! I am up and just sitting in my calming room meditating a bit before we leave for the hospital. I can't believe that the next time I sit in this room it will be as a mother with my beautiful little one. I barely slept (either out of excitement or nervousness), yet I'm not tired nor do I feel any nervousness now. I am prepared. I am surrounded by love (both present and virtual) and I am ready to meet this tiny human that I've been sharing space with for 37 weeks! It is inconceivable that someone so loving, so ready for motherhood, was cheated of the experience.

Though Soleil was delivered three weeks early, with some respiratory problems and suffered from colic, Shalon thought she was perfect—the fulfillment of a mother's dream. According to Shalon, Soleil was her greatest accomplishment.

However, that euphoria was short lived.

The 3 short weeks that followed Soleil's birth should have been filled with joy, happiness, and improving health. Instead, Shalon's general state of health steadily declined during this period. She suffered from elevated blood pressure. She experienced leg swelling. She had decreased urine output. She put on weight. She had headaches. Instead of improving over time, she felt increasingly worse and not her normal self. Shalon and I knew something was terribly wrong. Despite frequent visits to her health care providers during this period, her complaints were not adequately addressed and routinely dismissed with the dismissive words "it's to be expected; you just had a baby."

Shalon suffered an arrest at home on the night of January 24, 2017, 21 days after the birth of her daughter and **just a few hours** after returning home from yet another visit to her medical provider. 911 was called, and Shalon was transferred to a local hospital, where we learned that complications from hypertension had led to the cardiac arrest which deprived her brain of oxygen for a significant period of time.

My vibrant, brilliant, beautiful 36-year old daughter, with everything in the world to live for, was officially declared brain dead on Thursday, January 26th. There is nothing so heart-wrenching as seeing your child unconscious, connected to instruments that can only say she is dying but cannot save her, unable to open her eyes to tell you she loves you one more time. Even with the dismal diagnosis, I could not let her go. Thursday evening, my cousin who was tasked with getting Shalon's papers in order found her medical directive and brought it to me at the hospital where I had kept a bedside vigil since my daughter was admitted. In the directive there was a paragraph Shalon had handwritten to me. The last line of that paragraph shattered my heart. She wrote: "*Mommy, I will fight hard, but if there is no hope, please let me go.*" But I couldn't. I just could not. My bedside vigil continued. It wasn't until Friday morning when I saw a single tear roll down Shalon's cheek, I knew my daughter was ready to go. I sat by her bedside again that night and cried. Then on Saturday morning, January 28, 2017, with both her father and me at her bedside, life support was removed. Fourteen minutes later, she was gone.

What infuriates me is that Shalon's death was a preventable tragedy. She was a 36-year-old woman of color who went to her health care workers again and again in distress – and she was not properly treated. Imagine the many gerontology breakthroughs, health miracles, epidemiology victories and social advancements that Shalon could have generated, if only her medical providers had listened to her and adequately addressed her cries for help. Even Shalon's many advantages — her B.A. in sociology, her two master's degrees, her dual-titled Ph.D. in Sociology and Gerontology, her CHES certification, her work as an

epidemiologist, her gold-plated insurance, and rock-solid support system — had not been enough to ensure Shalon's survival. Shalon deserved better. Soleil deserved to know her mother.

Shalon's death has been called "shameful". "Sad". "Senseless". "Tragic". One thing is certain in my mind: it was definitely a tragedy—a shameful, sad, senseless and **preventable** tragedy. IT SHOULD NOT HAVE HAPPENED. My granddaughter will grow up without her phenomenal mother by her side and the incredible influence Shalon would have had on Soleil's life.

Since my daughter's death, my life has been framed by unbearable pain and unrelenting sadness. At this point in my life, I did not expect to be raising my granddaughter. I wanted to be that indulgent grandmother on the sidelines, watching my daughter and granddaughter grow together. Instead, I am acutely aware that I will face the rest of my days without my daughter and my best friend. Her clothes still hang in her closets. Her shoe racks still display all her shoes. Everything is still organized exactly as she left it. Visitors must still remove their shoes before entering her home. The wind chimes she hung on her front porch still add a sense of peacefulness. Her house is still her house. For months after her death I convinced myself that she would be home after work. Day in day out, I looked forward to 4:30pm only to go into a grief spiral the later it got. I still catch myself hoping she will come through the door at 4:30pm. Nights are still the loneliest times of my day, and many a night I don't sleep at all. It is when the tears still come. Even with a very vocal 31month old in the house, it is surprising how quiet my life has become without my daughter. I miss our conversations. I miss her words of wisdom. I miss her insight, which was always right on point. I miss her smile. I miss her laughter. I miss her hugs. Most important, I miss her love. Depression is an ever-present companion now. Shalon loved the holidays. But holidays don't exist at her house now. It seems so wrong without Shalon. No Easter bunny. No 4th of July barbecues. No trick or treating. No Thanksgiving turkey and sweet potato pies. No Christmas trees. No Santa Claus. No joyous and merry holiday seasons. No New Year's Jamaican food extravaganzas prepared by Chef Shalon. I know at some point, for Soleil's sake I must recognize the holidays, especially now, thanks to her I Pad, she knows about Santa Claus and sings Jingle bells on a regular basis.

Soleil is transitioning from a toddler to a little girl. She is 31 months old now. I see Shalon in her daughter. Soleil's smile is every bit as brilliant as her mother's. I only wish Shalon were here raising Soleil and guiding her life. I never meant to be on the front lines, raising a spirited little one who is ramping up her energy and excitement for the world – She constantly amazes me with her rapidly expanding vocabulary, her capacity for learning French, her athleticism as a gymnast and her love for art and ballet.

Each morning Soleil and I say good morning to mommy's picture. I want her to know she had a truly remarkable mother who loved her dearly and would have done anything to be here raising her. But it is no easy task. There are no words in the English language to

adequately portray what our life is like without my daughter—or the pain I feel when Soleil looks up at me and asks "Where is my Mommy, Nona? Why can't I see her?" Soleil has a favorite picture of her Mommy, which she hugs and tells me "I love Mommy". It brings tears to my eyes because Soleil should be hugging her Mommy. Shalon did not have to die. Shalon thought Doc McStuffins was a good role model for little girls. Soleil loves Doc McStuffins. She has a doctor's coat, a stethoscope, and a doctors bag filled with other doctor's instruments—ironically, the blood pressure cup is her favorite. She gives me regular check ups. Shalon would be so proud of her.

Assembling an extended family village for Soleil was very important to Shalon. She had some incredible friends who have tried to be there for me in everyway, for which I am eternally grateful. They have been there to celebrate each of Soleil's milestones. Shalon would definitely be thankful that her village stepped up and rallied around Soleil and me. What I have trouble explaining to them is that as much as they love Soleil and me, some days we must walk this difficult journey alone. I take it day by day. It is only my granddaughter's smile that motivates me to get up every morning, with the same goal each day—wake up, honor Shalon's legacy, take care of her daughter, as she would have wanted. This goal keeps me moving forward. That, and a letter Shalon wrote two years preceding her death, and left for me in the event of her death. Following is the last paragraph of that letter:

Mommy, I am sorry that I have left you. On the particular day that I am writing this I have no idea how that may have occurred but know that I would never choose to leave you. It troubles me deeply that you are grieving. I know it seems impossible right now, but Mommy please do not let this break you. I want you to be happy and smile. I want you to know that my brothers and grandma are watching over me and that we are all watching over you. Mommy, please try not to cry. Use your energy instead to feel my love through time and space. Nothing can break the bond we have and you will forever be my mommy and I your baby girl! I love you for always! Lon

I have spent the last year trying to use my energy to feel her love by continuing her work. There is no mistaking the difference Dr. Shalon MauRene Irving made in this world. The difference her story continues to make every time I share it. Given the pain and turmoil I have experienced, I can never return to the ME that existed before losing my daughter. If I could go back in time and save my daughter, I would do anything. GIVE ANYTHING. If only I knew then what I know now. But, I take a small measure of comfort in knowing that Shalon's story has ignited a passion in some legislators, doctors and health care advocates to transform the health care system when it comes to lowering the maternal mortality rates and making changes to postpartum care protocol. To paraphrase a line from Abraham Lincoln's Gettysburg Address "it is the cause for which Shalon gave her last full measure of devotion". It is up to us the living to carry on. Babies deserve a lot of care and attention after birth, but I can't emphasize enough that mothers are equally as important. They

deserve care and attention after birth as well as before giving birth. I know my daughter did. **Shalon did not have to die.**

Dr. Brian Yablon, an EIS colleague of Shalon and internist at Hennepin Healthcare said, "Shalon was a kind, thoughtful, and principled woman. As a sociologist, she brought a unique and much needed perspective to the science of epidemiology. She advised that we not get so caught up in the science that we forget the people behind the numbers. Her wisdom and moral compass were just two qualities that made Shalon an exceptional human being."

If Shalon were here today, she would also caution you not to get so caught up in the data, the maternal mortality statistics that you forget that behind every single number there is a face. The face of a woman who is loved. The face of a woman who had so much to offer the world. The face of a woman who will not get the opportunity to raise her beloved baby. If you take that face and multiple it, that one statistic not only includes the face of a woman who will be immeasurably mourned and forever missed but also the families left devastated by her death—the babies, the other children, the woman's mothers, like me, the fathers, the husbands, the friends, the colleagues. The domino effect of that one statistic is incomprehensible. So whenever you are tempted to think of maternal mortality statistics as just data or numbers, put Shalon's face in front of that number and remember my words.
In closing, I ask you, no I implore you to take 3 points from my words today.
One: Not every maternal mortality is because of lack of insurance, non-access to care, poverty or lack of education.
Two: The majority of maternal deaths are preventable.
Three: We must demand that postpartum care be redefined and optimized. We must hold health care professionals accountable for improving the quality of care and ensuring equity.

Sending folks to cultural sensitivity or implicit bias training is not going to fix the problem. We must demand the transformation of the health care systems in order to better respond to the needs and priorities of women, especially women of color. The reduction of preventable maternal deaths **must** become a national priority. It is for me. It was for Shalon. It should be for you too.

Thank you.

Mr. LONG. Madam Chair, Madam Chair, I don't know if I need to ask for a point of personal privilege or what, but I am going to say something.

I am a member of the Black Maternal Health Caucus, and I care deeply about this issue, and I think it is repugnant that we have to sit here and listen to whatever in the world is going on out there in the hall. These women deserve better. These women that passed away during and after childbirth. This is a very serious hearing, and that—whatever they are celebrating or complaining about out there in the hall, the Capitol Hill Police need to put a stop to it. If you could ask them to do it, I appreciate it.

I yield back.

Ms. ESHOO. I thank the gentleman.

Thank you, Ms. Irwin, for your—this is the first step to the promise that you are asking us to keep. Thank you for being here today.

Dr. Patrice Harris, you are recognized for your 5 minutes.

STATEMENT OF PATRICE HARRIS, M.D.

Dr. HARRIS. Good morning, Chairwoman Eshoo, Ranking Member Burgess, and committee members.

The American Medical Association commends you for holding today's legislative hearing. My name is Dr. Patrice Harris, and I am president of the AMA. I am a practicing child and adolescent psychiatrist from Atlanta, and I am adjunct faculty at the Emory University School of Medicine and the Morehouse School of Medicine. I thank you for the opportunity to testify.

The data on maternal mortality in the U.S. are deeply alarming. The U.S. is only one of three countries in the world where the rate of maternal deaths is rising. Moreover, there is a large disparity in maternal deaths. As you have heard, a recent CDC report found that Black women are three to four times and Native American/Alaska Native women are two and a half times more likely to die from pregnancy-related causes as White women. And Black and Hispanic women are disproportionately affected by severe maternal morbidity, defined as life-threatening complications during or after childbirth. Most alarmingly, 60 percent of pregnancy-related deaths are preventable. This is simply unacceptable when we know these inequities and disparities are avoidable. Inequities and disparities do not have to exist, and we must collectively increase our efforts to close the gap.

What is causing these deaths? And why is the rate so much higher, particularly for Black and Native American women? Among the factors that play a role are as follows: Millions of women still lack insurance or have inadequate coverage prior to, during, and after pregnancy. There is increased closures of maternity units both in rural and urban communities and, thereby, reduced access to quality maternal care. There is a lack of appropriately trained interprofessional teams in best practices, and that also impacts quality of care. There are structural determinants of health, which include public policies, laws, and racism. And those impact the social determinants of health, which include education, employment, housing, and transportation. Discrimination, racism, implicit biases exacerbates stress, which negatively affects the body and can result in

hypertension, heart disease, and gestational diabetes during pregnancy.

The evidence tells us that clinician and institutional biases can lead to missed warning signs—can and do lead, I must say, to missed warning signs and delayed diagnoses. Women of color are not being heard.

So how do we move forward? Regarding specific solutions, the AMA believes that ongoing surveillance and activities to promote appropriate screening, referral, and treatment are needed. I want to thank the House Energy and Commerce Committee for advancing H.R. 1318. We continue to support the expansion of State Maternal Mortality Review Committees and appreciate continued funding to support prevention efforts.

We also support the MOMMA's Act to improve data collection, spread that information from that data on effective interventions, and expand access to healthcare and social services for post partum women. And to ensure optimal health for women at risk for medical or mental health conditions leading to maternal death, additional insurance coverage is required. And the AMA believes that Medicaid coverage should be extended to cover women 1 year post partum.

And, finally, let me highlight what the AMA is doing in this space internally in our own house. The medical community absolutely has a role to play here. The AMA recently hired Dr. Aletha Maybank as the AMA's first chief health equity officer, and she is initiating our new and explicit path to advanced health equity through the AMA Center for Health Equity and, although our Center for Health Equity is just getting up and running, there is great potential to partner with Congress to expand implicit bias training and other structural competency trainings in medical schools, residencies, and throughout the physician's career.

So it will take all of us working in partnership, and the AMA is committed to doing so, to build and continue on a path forward to more holistically and effectively improve maternal health and advance health equity.

Thank you.

[The prepared statement of Dr. Harris follows:]

STATEMENT

of the

American Medical Association

to the

U.S. House of Representatives
Committee on Energy & Commerce,
Subcommittee on Health

Re: Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care

Presented by: Patrice Harris, MD, MA
President AMA Board of Trustees

September 10, 2019

Division of Legislative Counsel
(202) 789-7426

STATEMENT

of the

American Medical Association

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**U.S. House of Representatives Committee on Energy & Commerce,
Subcommittee on Health**

Re: Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care

September 10, 2019

The American Medical Association (AMA) appreciates the opportunity to provide testimony to the U.S. House of Representatives Committee on Energy & Commerce, Subcommittee on Health, as part of the hearing entitled, "Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care." The AMA commends the Committee for focusing on this critically important issue, which disproportionately affects Black women and Native American/Alaska Native women. The AMA also commends the many advocates who have paved the way for this issue to capture the attention of media, policy makers, and the health care sector. As the largest professional association for physicians and the umbrella organization for state and national specialty medical societies, the AMA is committed to working with other stakeholders to support efforts to reduce and prevent rising rates of maternal mortality and serious or near-fatal maternal morbidity.

The Problem: Rising Maternal Mortality and Morbidity in the U.S.

According to the Alliance for Innovation on Maternal Health (AIM), the U.S. is one of only three countries in the world—Sudan and Afghanistan being the others—where the rate of maternal deaths is on the rise. While maternal deaths are rare—approximately 700 occurring yearly out of 3.8 million births—an additional 50,000 women have serious maternal morbidity. Maternal mortality (pregnancy-related death) is defined as the death of a woman while pregnant or within one year of the end of a pregnancy—regardless of the outcome, duration, or site of the pregnancy—from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.[1] Severe maternal morbidity is a life-threatening complication during childbirth, which can include heavy bleeding, kidney failure, and stroke or heart attack during delivery. Experiencing severe maternal morbidity can have serious and life-long consequences for women and their families.

In a recent report by the Centers of Disease Control and Prevention (CDC)—which looked at pregnancy-related deaths from 2011 to 2015 and reviewed more detailed data from 2013 to 2017 provided by maternal mortality review committees in 13 states—there were significant disparities in the death rate for different racial, ethnic, and age groups.[2] Alarmingly, the CDC found that Black women were three to four times more likely (42.8 deaths for every 100,000 live births) than white women (13 deaths for every 100,000 live births) to die from a pregnancy-related cause; Native American and Alaska Native women were 2.5 times more likely (32.5 deaths for every 100,000 live births) to suffer a pregnancy-related death. Moreover, the rate differed by location, with the rate much higher in some states. The study also found

[1] https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pregnancy-mortality-surveillance-system.htm
[2] https://www.cdc.gov/mmwr/volumes/68/wr/mm6818e1.htm?s_cid=mm6818e1_w

that pregnancy-related deaths were occurring across a lengthy time span: more than 31 percent of deaths were during pregnancy; 36 percent occurred during delivery or in the week after birth; and 33 percent happened one week to one-year post-partum. Overall, heart disease and stroke were the leading cause of pregnancy-related deaths each year from 2011 to 2017, but the causes were different depending on when the deaths occurred. For example, obstetric emergencies such as hemorrhage (e.g., severe bleeding) and amniotic fluid embolisms caused most deaths at delivery; hemorrhage, high blood pressure, and infection were most common in the week after delivery; and cardiomyopathy (weakened heart muscle) caused most deaths one week to one year after delivery. Perhaps the most significant and troubling finding in the study is that the CDC estimates that 60 percent of all maternal deaths are preventable.

Health Equity and Social Determinants of Health

The AMA defines health equity as "optimal health for all" and recognizes the importance and urgency of advancing health equity and addressing SDOH to ensure that all people and communities reach their full health potential. The World Health Organization (WHO) defines health equity as the "absence of unfair and avoidable or remediable differences in health among social groups." This definition clarifies that inequities and disparities do not have to exist, but that inequities are produced; they do not just happen; the people who are negatively impacted by experiencing the injustice are not to blame; and there is something that we can actually do to close the gap.

Health disparities—i.e., differences in health outcomes—in maternal health are the result of conditions that are similar for other disparities that exist. These conditions are widely understood to be the SDOH. According to Healthy People 2020, the "social determinants of health are conditions in the environment in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality of life outcomes and risk." These social determinants include education, housing, wealth, income, and employment. We all experience conditions that socially determine our health or the SDOH. However, we do not all experience them equally.

The SDOH are impacted by larger and powerful systems that lead to discrimination, exploitation, marginalization, exclusion, and isolation. In this country, these historic and systemic realities are baked into structures, policies, and practices and produce, exacerbate, and perpetuate inequities among the SDOH, and therefore affect health itself. These larger, powerful systems of racism and gender oppression—also known as the root cause inequities—are upstream to the social determinants of health. They have shaped the social conditions in which women and families live, and they work to produce inequities across society in complex ways, especially for those marginalized at the intersection of race and gender, i.e., Black and Native American women.

Birth inequities arise at the intersection of discrimination by race and gender for Black and Native American women. We know that in some places across the country, Black women with at least a college degree had higher severe maternal morbidity rates than women of other races/ethnicities who never graduated high school. It is clear that racism and discrimination—at the provider, institutional, and societal levels—is an attributable etiology of the increased proportion of Black and Native American mothers inclusive of inequitable access to and quality of care, institutional racism, mistrust for health care institutions, and delayed response to medical emergencies by both medical providers and patients, and a culture of disrespect that can lead to mistrust for health care institutions. Stories from Black women also tell us about a culture of disrespect as well as realities of not being listened to or heard.

At the provider and institutional levels, there is a growing body of evidence demonstrating that implicit and explicit biases exist that negatively impact the quality of health care equity and patient safety and drive these inequities. This was described originally in an Institute of Medicine (now the National

Academy of Medicine) report, more than 16 years ago.[3] The evidence shows that Blacks are more likely to receive poorer quality of care and less likely to receive the standard of care even when controlling for insurance status and income. This was linked with higher death rates for Blacks.

In addition, there has been a growing body of work examining the impact of structural racism on health in this country. In 2017, Dr. Zinzi Bailey et al published a study in the *Lancet*, "Structural Racism and Health Inequities in the US: Evidence and Interventions," that explains structural racism to be the "totality of ways in which societies foster racial discrimination through mutually reinforcing systems of housing, education, employment, earnings, benefits, credit, media, health care, and criminal justice. These patterns and practices in turn reinforce discriminatory beliefs, values, and distribution of resources." And one key example of structural racism included how "residential segregation systemically shapes health care access, utilization, and quality at the neighborhood level, health-care system, and provider levels."

This spring, the *New England Journal of Medicine* published "Structural Racism—A 60-Year-Old Black Woman with Breast Cancer," exposing the impact of racism, not just race, on health outcomes. One of the authors, our Chicagoan colleague and partner from Rush Medical Center, Dr. David Ansell, says "we must be willing to identify the health impact of racism. The biological differences between groups are tiny, yet the gaps in outcomes are simply too wide to continue to see race as a disease risk factor when the root cause is racism."

While more research is needed on the relationship of discrimination and chronic stress of racism on maternal and infant health outcomes, there is evidence that experiences of discrimination and racism have a "weathering" effect on the body. Dr. Arline Geronimus, who coined the "weathering" hypothesis, explained that "Blacks experience early health deterioration as a consequence of the cumulative impact of repeated experience with social or economic adversity and political marginalization" over one's life course.[4] This physiologic pressure, also later described as allostatic load, can cause stress hormones, such as cortisol, and cause organ and cardiovascular, metabolic, and immune systems damage over time. In addition, chronic stress and trauma due to discrimination that occurs as early in-utero and early childhood, also known as adverse childhood experiences, have been associated with poor health outcomes and early death as an adult.

SDOH Impact on Maternal Mortality and Morbidity

Insurance and Access to quality reproductive health care

Almost half of all U.S. births are to women with public insurance.[5] Public insurance has large coverage gaps for the low-income women who require it: in many states this coverage is not available prior to pregnancy, when women with medical conditions require it.[6] Insurance also terminates in the months following pregnancy when the vast majority of maternal deaths occur.[7] Medicaid coverage has improved maternal outcomes for low-income women.[8] In addition, research has shown Medicaid expansion has made progress in increasing pre-pregnancy coverage rates.[9] We strongly urge Congress to safeguard Medicaid funding so as to not exacerbate the problem of maternal mortality and morbidity in the U.S. Furthermore, in order to assure optimal health care for the women at risk for medical or mental health conditions leading to maternal death, we believe additional insurance coverage is required. As mentioned

[3] Institute of Medicine. 2003. Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care. Washington, DC: The National Academies Press. https://doi.org/10.17226/10260
[4] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1470581/
[5] https://www.cdc.gov/nchs/products/databriefs/db318.htm
[6] https://www.macpac.gov/wp-content/uploads/2018/11/Pregnant-Women-and-Medicaid.pdf
[7] Id.
[8] https://ccf.georgetown.edu/2019/05/09/medicaid-expansion-fills-gaps-in-maternal-health-coverage-leading-to-healthier-mothers-and-babies/
[9] https://www.ncbi.nlm.nih.gov/pubmed/30156498

earlier, the CDC has found that about one-third or 33 percent of maternal deaths happened one week to one-year post-partum. Several states, including Texas, Illinois, New Jersey, South Carolina, and California, have proposed bills that would extend Medicaid coverage for a year postpartum, and federal legislation has also been proposed to extend Medicaid. It is critical that Congress works in a bipartisan manner to ensure Medicaid coverage for one-year post-partum.

Reduced access to quality maternity care

Safe maternity care requires access to hospitals with quality Obstetric units and access to appropriately trained medical teams led by obstetric physicians. Concurrent with the increased focus on maternal care delivery, hospitals with smaller maternity units have been closing. This trend in the U.S. is true for both urban and rural maternity units. Data from the American Hospital Association (AHA) reveals that 500,000 women deliver in rural hospitals each year. Women in rural hospitals are less likely to have Obstetric physicians provide care. According to data reported by HRSA, over 28 million reproductive-aged women (18-44) live in rural U.S. counties. Between 2004 and 2014, the percentage of rural counties that lacked hospital obstetrics units increased from 45 to 54 percent.[10] Medicaid expansion is credited with keeping many rural hospitals afloat. Research has shown that low volume maternity units have an increasing risk of closure of maternity units.[11] Hospitals with low volume maternity units are also more likely to share nursing staffing with other units and less likely to have trained emergency medicine physicians.

Mental health throughout the pregnancy spectrum

The CDC reports higher rates of depression in women of color, and lower rates of treatment.[12] Depression in pregnancy is associated with poor maternal outcomes including maternal death. With regards to postpartum depression, it is a mood disorder that can affect women after childbirth. Mothers with postpartum depression experience feelings of extreme sadness, anxiety, and exhaustion that may make it difficult for them to complete daily care activities for themselves or for others. Postpartum depression occurs in nearly 15 percent of births. It is important to note that postpartum depression does not have a single cause, but likely results from a combination of physical and emotional factors. Postpartum depression does not occur because of something a mother does or does not do. Without treatment, postpartum depression can last for months or years. In addition to affecting the mother's health, it can interfere with her ability to connect with and care for her baby and may cause the baby to have problems with sleeping, eating, and behavior as he or she grows.[13] The AMA believes that ongoing surveillance and activities to promote appropriate screening, referral, and treatment are needed to reduce depression and suicide among women before, during, and after pregnancy.

What the AMA is doing to address Maternal Mortality and Morbidity

A commitment to health equity means we must address the SDOH and we must elevate and name the root causes of why health inequities exist and how they came to be—both in society and at the institutional level. The AMA demonstrates its commitment through addressing the social conditions that impact health, increasing health workforce diversity, advocating for equity in health care access, promoting equity in care, and ensuring equitable practices and processes in research and data collection. Although the AMA and physicians cannot control all factors that need to change to achieve health equity, the AMA views as its role to identify their importance and to urge and educate those who can have a direct role to act.

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[10] https://www.hrsa.gov/enews/past-issues/2017/march-16/rural-ob.html
[11] https://onlinelibrary.wiley.com/doi/epdf/10.1111/1475-6773.12441
[12] https://www.cdc.gov/mmwr/volumes/66/wr/mm6606a1.htm?s_cid=mm6606a1_w
[13] https://www.nimh.nih.gov/health/publications/postpartum-depression-facts/index.shtml

The AMA supports efforts designed to integrate training in social determinants of health and cultural competence across the undergraduate medical school curriculum to assure that medical students are prepared to provide patients with safe, high quality, and patient-centered care. In 2013, the AMA launched the "Accelerating Change in Medical Education" initiative. Today, the 37-member consortium, which represents almost one-fifth of allopathic and osteopathic medical schools, is delivering forward-thinking educational experiences to approximately 19,000 medical students—students who will provide care to a potential 33 million patients annually. One of the earliest innovations to come from the Consortium was the new and innovative curriculum on health systems science, which includes a chapter on the social determinants of health. Nearly all the 37 schools in the consortium are addressing the social determinants of health with a focus on ensuring that students recognize the impact of social determinants on health outcomes and are working with inter-professional colleagues to address them.

In 2019, the AMA announced its Reimaging Residency Initiative, designed to transform residency training to best address the workforce needs of our current and future health care system. Many of the applications to the graduate medical education initiative have included health systems science training in their proposals.

For practicing physicians, the AMA launched STEPSforward.™ an interactive practice transformation series offering innovative strategies that will allow physicians and their staff to thrive in the evolving health care environment by working smarter, not harder. This series includes a continuing medical education module on "Addressing Social Determinants of Health: Beyond the Clinic Walls." The interactive module helps physicians identify how to best understand the needs of their community, define a plan to begin addressing social determinants of health, and explains the tools available to screen patients and link them to resources.

The AMA also supports payment reform policy proposals that incentivize screening for social determinants of health and referral to community support systems. Last month, the AMA and UnitedHealthcare announced a new collaboration to better identify and address social determinants of health to improve access to care and patient outcomes. The goal is to standardize data collection, processing, and integration regarding critical social and environmental factors that contribute to patient well-being through the creation of nearly two dozen new ICD-10 codes related to SDOH. By combining traditional medical data with self-reported SDOH data, the codes trigger referrals to social and government services to address people's unique needs, connecting them directly to local and national resources in their communities.

On the policy side, specifically related to addressing maternal mortality and morbidity, the AMA supported legislation enacted into law last year, H.R. 1318 (P.L. 115-344), the "Preventing Maternal Deaths Act," that supports state maternal mortality review committees (MMRCs). MMRCs bring together local experts—ob-gyns, nurses, social workers, patient advocates, and other health care professionals—to review individual maternal deaths and recommend specific ways to prevent them in the future. We appreciate that Congress appropriated $50 million in Fiscal Year 2019 to support prevention efforts. MMRCs are a critical first step in efforts to make pregnancy safer for women.

In addition, the AMA is supporting legislation introduced in the 116th Congress, the "Mothers and Offspring Mortality and Morbidity Awareness (MOMMA's) Act" (H.R. 1897/S. 916), which would improve data collection, disseminate information on effective interventions, and expand access to health care and social services for postpartum women. The bill would enhance federal efforts to support states in collecting, standardizing, and sharing maternal mortality and morbidity data, and authorizes and expands existing federal grant programs dedicated to scaling best practices to improve maternity care. The MOMMA's Act would also authorize states to expand coverage under Medicaid, CHIP, and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) through a longer post-partum

period for women. The bill would also ensure improved access to culturally-competent care training and workforce practices throughout the care delivery system. We understand that there are several other pieces of legislation that have been or will be introduced in the coming days/weeks and we offer our commitment to continue working with Congress to address this critical issue.

In addition, to improve health equity, the AMA's strategic and focused approach includes a multi-pronged, multi-year investment, strategic partnerships, and advocacy. Our goals are to champion health equity and promote greater diversity within the medical workforce. To date, our most recent and greatest demonstration of a commitment to health equity is creating a new role and hiring our first Chief Health Equity Officer, Aletha Maybank, MD, a pediatrician with extensive experience championing health equity who most recently worked in the New York City Public Health Department and was the founding director of the city's Center for Health Equity. In her new role, Dr. Maybank will launch the Center for Health Equity at the AMA, initiating our new and explicit path to advance health equity.

In response to advocacy by our Board and management arms of the organization, Dr. Maybank's role at the AMA as their first Chief Health Equity Officer is to embed health equity across the AMA so that health equity becomes part of the practice, process, action, innovation, and organizational performance and outcomes. The best measure of our long-term success and most desired outcome is meaningful, relevant, and impactful inclusion of health equity into the strategic and operational objectives of the AMA.

Providers' and Health Care Systems' Role in Maternal Morbidity and Mortality

Providers, hospitals, and health care systems play a critical role in ensuring that all mothers and families have healthy and safe experiences around the time of birth. We applaud the growing number of places and people that are making significant investments to meaningfully engage health care systems and providers to improve the quality and safety of care for women. This is being done by enhancing data tracking and analysis of maternal and pregnancy-related morbidity and mortality events in order to stop preventable complications; integrating structural competency, cultural sensitivity, and implicit bias training opportunities; and working with partners from different sectors and with patients to better inform system changes and improvements. Narratives from the lived experiences of Black women indicate there is a rupture of trust between Black women and the health care system that must also be addressed.

Medical education curriculum incorporates teaching and training on implicit and explicit biases, to provide tools and build skills to recognize and eliminate bias, and integrate structural competency education, which as described by Jonathan Metzel "is a framework for conceptualizing and addressing health-related social justice issues that emphasizes diagnostic recognition of economic and political conditions producing and racializing inequalities in health."[14] Although the AMA's Center for Health Equity is just getting up and running, there is great potential to enter this space and conduct an assessment of medical schools to find out which institutions offer and/or require implicit bias and other structural competency trainings. There also may be an opportunity to advance criteria on what needs to be included in the training as well as a list of organizations or individuals who could offer robust training in this area.

We encourage health care systems to work alongside other partners such as women, community-based organizations, public health systems, and insurers to identify and adopt standards for respectful care at birth. We note specifically programs similar to NYC's Maternal Hospital Quality Improvement Network and collaborative efforts with 38 hospitals and clinical providers and 100 community-based organizations fostering a sense of team work and shared–decision making to ensure respectful, safe, and quality care at the time of delivery and after. Also, key to NYC's model are enhancing meaningful community

[14] https://journals.lww.com/academicmedicine/Fulltext/2017/03000/Integrating_and_Assessing_Structural_Competency_in.30.aspx

engagement and data quality and timeliness for collection and review as well as hospitals implementing Trauma and Resilience Informed Systems to provide a shared language and understanding of how stress and trauma affect individuals, institutions, and communities and provide tools for clinical setting and promote resilience within the workforce and patient population.

Conclusion

The scientific evidence shows that there are concrete actions that can be taken to reduce and prevent rising rates of maternal mortality and serious or near-fatal maternal morbidity in the United States. The AMA is committed to working with the Committee on legislation to support efforts to address this critically important issue.

Ms. ESHOO. Thank you, Dr. Harris.

We now will call on Dr. Elizabeth Howell, director of the Blavatnik Family Women's Health Research Institute at Mount Sinai. You have 5 minutes for your testimony. Welcome and thank you.

STATEMENT OF ELIZABETH A. HOWELL, M.D.

Dr. HOWELL. Chairwoman Eshoo, Ranking Member Burgess, Representative Engel of New York, and members of the Subcommittee on Health, thank you for inviting me to testify.

My name is Elizabeth Howell, and I am an obstetrician/gynecologist and a researcher. I serve as a professor in the Departments of Population Health Science and Policy and Obstetrics, Gynecology, and Reproductive Science. I also direct the Blavatnik Women's Family Health Research Institute at the Icahn School of Medicine at Mount Sinai.

So we are here today because the United States is in a maternal healthcare crisis. You have heard that every year in our country around 700 women die from pregnancy-related causes. Our maternal mortality rate is higher than all other high-income countries. And our numbers, as you have heard, are far worse for women of color. While leading causes of maternal death include heart conditions, high blood pressure, infections, blood clots, rates of maternal death from overdose and suicide are rapidly climbing. And opioid-related deaths have doubled over the last decade.

But a maternal death is just the tip of the iceberg. For every death, over a hundred women experience a life-threatening complication related to pregnancy and childbirth. Severe maternal morbidity impacts over 50,000 women every year in our Nation. Every hour, six new moms will have a tragic event like a stroke, a blood clot, or kidney failure. As you heard, the good news is that over half of these tragic events, actually 60 percent, are preventable if we improve the quality of care women receive before, during, and after pregnancy.

Quality of care includes women, no matter who they are and where they live, having access to doctors and nurses who are well-trained, prepared, and equipped with the right tools. It also means having systems in place that make it easy for women to receive evidence-based care. That means hospitals equipped with adequate resources, policies, and practices, staffing, and more. If we raised quality of care for pregnant women, we could lower the rates of these tragic events.

And quality of care differs for women of color. You have heard that Black women are three to four times and American Indian women are three times more likely to experience a pregnancy-related death than are White women. In New York City, Black women are 8 to 12 times more likely to experience a maternal death than are White women.

Although many want to think that income differences drive these disparities, it goes beyond class. A Black woman with a college education is nearly twice as likely to die as a White woman with less than a high school education, and she is nearly three times more likely to experience a severe maternal morbidity.

There is a growing recognition that social determinants of health, like racism and segregated housing, contribute to these disparities, and the powerful story you heard from Ms. Irving about her daughter highlights an additional underlying cause: quality of care, lack of standards, and post partum care. Her daughter was seen multiple times by clinicians after her delivery, but she still died.

Reasons for Black/White differences highlight the need to adequately resource programs that enhance quality of care. Research by our team and others has shown that, for a variety of reasons, Black women tend to deliver in a specific set of hospitals. And those hospitals have higher rates of severe maternal morbidity for both Black and White moms, regardless of patient risk factors. This is true overall in the United States, where about three-quarters of all Black women deliver in these hospitals but less than one-fifth of White women do.

In New York City, a woman's risk of having a life-threatening complication during her delivery in one hospital can be six times higher than in another hospital. Black and Latina mothers are more likely to deliver in hospitals with worse outcomes. In fact, differences in delivery hospital explain nearly one-half of the Black/White disparity in severe maternal morbidity in New York City.

But it does not have to be this way. We can come up with simple and effective ways to measure and improve quality of care for childbearing women, whether they are Black or White, rich or poor, rural or urban. I am pleased today to provide testimony in strong support of a number of elements discussed in the bills.

First, development of maternal health quality measures that are patient-centered and address disparities; authorization of the Alliance for Innovation in Maternal Health, the AIM program, which is a national partnership that works to reduce maternal mortality and morbidity by implementing standardized care practices across hospitals and health systems; extension of Medicaid for 12 months post partum to ensure access to needed care; development and expansion of State perinatal care quality collaboratives to improve quality of care for moms and infants; support for healthcare professional training to address implicit bias. I would expand this to include training on patient-centered communication, shared decision-making, and actions to address both implicit and explicit bias. And, last, I would echo efforts that are already started, but we need more to build a better infrastructure to support data collection and measurement.

I would like to end my testimony by saying that we have to value pregnant women from every community. We can and must do better. I thank you for this opportunity to provide testimony, and I look forward to your questions.

[The prepared statement of Dr. Howell follows:]

TESTIMONY OF ELIZABETH A. HOWELL, MD, MPP
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DIRECTOR OF THE BLAVATNIK FAMILY WOMEN'S HEALTH RESEARCH INSTITUTE
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TO THE UNITED STATES HOUSE OF REPRESENTATIVES

COMMITTEE ON ENERGY AND COMMERCE

SUBCOMMITTEE ON HEALTH

"IMPROVING MATERNAL HEALTH: LEGISLATION TO ADVANCE PREVENTION EFFORTS AND ACCESS TO CARE"

SEPTEMBER 9, 2019

Madam Chairman Eshoo, Ranking Member Burgess, Representative Engel of New York and Members of the Subcommittee on Health, thank you for inviting me to testify and discussing how we can improve maternal health.

My name is Elizabeth Howell. I am an obstetrician gynecologist and a health services researcher. I serve as Professor in the Departments of Population Health Science & Policy and Obstetrics, Gynecology, and Reproductive Science and direct the Blavatnik Family Women's Health Research Institute at the Icahn School of Medicine at Mount Sinai.

As I recently shared in my TEDMED talk, the first time I witnessed a maternal death was during my residency training and I will never forget it. I was coming back on duty to cover the labor and delivery unit and it was chaos when I got off the elevator. All I could see was a swarm of doctors and nurses hovering over a patient in the labor room. They were all desperately trying to save a woman's life.

The patient was in shock. She had delivered a healthy baby boy about an hour before I came to the hospital. Suddenly she collapsed, became unresponsive, and had profuse uterine bleeding. By the time I got to the room, multiple doctors and nurses were there and the mother was lifeless. The resuscitation team tried to bring her back, but despite everyone's best efforts she died. What I remember most about that day was the father's piercing cry. His cry went through my heart, and the heart of everyone on that floor. This was supposed to be one of the happiest days of his life. Instead it turned out to be the worst day.

This tragedy happens to hundreds of families every year in the United States. Approximately 700 women die from a pregnancy-related cause each year. Our maternal mortality rate is higher than other high-income countries, and the numbers are far worse for women of color. Our rate of

maternal deaths has increased over the last decade while other countries have reduced their rates. Yet we spend more on healthcare than any other country in the world.

The leading causes of maternal deaths in the United States include cardiovascular conditions such as cardiomyopathy and stroke, hypertension, hemorrhage, embolism and infection. In addition, data indicate that maternal deaths from substance use disorders and mental health are climbing. Maternal mortality involving opiates doubled over the last decade.

A maternal death is just the tip of the iceberg. For every death, over 100 women experience a severe complication related to pregnancy and childbirth resulting in thousands of women every year experiencing one of these events according to the CDC. These complications, called severe maternal morbidity, include life threatening events such as stroke, blood clots, end organ damage (e.g. kidney failure), receiving a blood transfusion, having a hysterectomy, or experiencing another tragic complication. The CDC reports that severe maternal morbidity is increasing and has doubled over the last two decades.

The uncomfortable part of this story is the fact that the majority of maternal deaths and a significant proportion of severe maternal morbidity are preventable. In fact, a recent CDC report that summarized findings from nine state maternal mortality review committees found that over 60% of the deaths were preventable making quality of care a critical lever to address the rising rates of maternal mortality. By quality of care I'm not just referring to the care provided by physicians, nurses, midwives, and other providers, but also the systems in place that make it possible – or more difficult – for women to receive evidence-based care. This holistic view also encompasses coverage, hospital system policies and practices, health care resources, and more. If we raised quality of care for pregnant women before, during, and after pregnancy, and implemented standardized care procedures across hospitals in the United States we could significantly lower rates of these tragic events.

The good news is that there are efforts at the national and state level to address quality of care, standardize care, and improve outcomes for pregnant women. At the state level perinatal quality collaboratives are working to improve quality of care for mothers and babies. Members identify health care processes that need to be improved and use the best available methods to make change. There are success stories in specific states but more resources are required to achieve better outcomes. At the national level the Alliance for Innovation on Maternal Health (AIM) is a national partnership that aims to reduce maternal deaths and severe maternal morbidity by engaging hospitals, health systems, state-based public health systems, consumer groups, community organizations, and others to implement evidence-based maternal safety bundles (standardized care practices). This data driven quality improvement initiative targets some of the most preventable causes of maternal death (high blood pressure, hemorrhage, and venous thrombotic disease). The AIM program is currently in 27 states and has the potential to reach the majority of US births. But the use of these bundles in many places around the country is missing or spotty and reflects the fact that quality of care differs across our nation.

Quality of care differs greatly for women of color. Black women are three to four times, and American Indian women are three times more likely to experience a pregnancy-related death than are white women. Although many want to think that income differences drive these disparities it goes beyond class. A black or African American woman with a college education is

nearly twice as likely to die as a white woman with less than a high school education and she is two to three times more likely to experience severe maternal morbidity.

These disparities are even more pronounced in some cities. For example, in New York City black women are 8 to 12 times more likely to die from a pregnancy-related death than are white women. I am sure some of you have heard the heartbreaking story in ProPublica about the CDC epidemiologist, Dr. Shalon Irving, who died three weeks after giving birth to her first child. Dr. Irving was a brilliant epidemiologist who was committed to studying racial disparities in health. This was her first baby; she was 36; and she was African American. She had a complicated pregnancy but left the hospital with a healthy baby girl. Three weeks later she died from complications of hypertension. She was seen four or five times after her delivery by healthcare professionals. However, she was not listened to and the severity of her condition was not recognized.

Shalon's story is just one of many examples of racial and ethnic disparities in healthcare. There is growing recognition that social determinants of health – like racism, poverty, education, and segregated housing contribute to these disparities. But Shalon's story highlights an additional underlying cause – quality of care, lack of standards in postpartum care. She was seen multiple times by clinicians after the birth of her daughter and before her death but she still died. Quality of care in the setting of childbirth is an underlying cause of racial and ethnic disparities in maternal mortality and severe morbidity and something we can address now.

Research by our team and others has shown that for a variety of reasons, black women tend to deliver in a specific set of hospitals and those hospitals have worse outcomes for both black and white moms regardless of patient risk factors. This is true in the United States overall where three quarters of all black women deliver in a specific set of hospitals while less than one-fifth of white women deliver in those same hospitals. Both black and white women have worse outcomes in those hospitals. In New York City, a woman's risk of having a life-threatening complication in one hospital can be six or seven times higher than in another hospital. Black and Latina mothers are more likely to deliver in hospitals with worse outcomes. In fact, differences in delivery hospital explain nearly one half of the black-white disparity and one-third of the Latina-white disparity in severe maternal morbidity.

Our poor performance on maternal mortality and the glaring racial disparities that exist require immediate action. I am pleased today to provide testimony in strong support of legislation aimed at reducing maternal mortality and morbidity and that specifically addresses the longstanding racial and ethnic disparities in maternal mortality and morbidity in our country. There are a number of important elements discussed in these bills that are essential to achieving our goals: 1) development and testing of patient-centered maternal health quality measures that address health disparities before, during, and after pregnancy, 2) authorization of the AIM program to ensure best practices across hospitals and health systems for the care of pregnant women, 3) extension of Medicaid for 12 months postpartum to ensure access to needed care, 4) development and expansion of state and regional perinatal care quality collaboratives, 5) care management and coordination to address the social determinants that contribute to disparities, 6) infrastructure to support better data collection and measurement, and 7) support for implicit bias training for healthcare professionals. I suggest expanding the last element to include support for training

students, trainees, and healthcare professionals on patient-centered communication strategies, shared decision-making skills, and actions to address both implicit and explicit bias.

I would like to end my testimony today by emphasizing the fact that quality of care in the US health care system is an underlying driver of our high maternal mortality and morbidity rates and the racial and ethnic disparities that exist. If we raised the quality of care universally to what is supposed to be the standard, we could bring the rates of deaths and severe maternal morbidity down dramatically. The question is: are we as a society ready to value pregnant women from every community? We must do better.

I thank you for the opportunity to provide testimony. I look forward to your questions.

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Ms. ESHOO. Thank you, Dr. Howell.

Members may notice that I am allowing witnesses to go past their 5 minutes, but I think every word that they have to be instructive to us is really essential.

Dr. David Nelson, it is your turn to testify. You have 5 minutes, and thank you again for being here.

STATEMENT OF DAVID NELSON, M.D.

Dr. NELSON. Chairwoman Eshoo, Chairman Pallone, Ranking Member Walden, Ranking Member Burgess, and members of the Energy and Commerce Subcommittee on Health, thank you for inviting me today. I am an obstetrician and gynecologist with fellowship training in maternal-fetal medicine. I am the chief of obstetrics at Parkland Hospital in Dallas, Texas. Parkland is one of the largest single public maternity services in the country. Last year, we delivered 12,671 women. This is more deliveries than 10 States in our country.

As the medical director of this service, I would like to share my appreciation of this committee for their efforts and celebrate the Preventing Maternal Deaths Act that encourages State programs to establish Maternal Mortality Review Committees. However, as you know, our work is not done. A single preventable pregnancy-related death is one too many. Mr. Johnson's testimony last year to this committee and Shalon's mother's testimony today emphasized this issue.

So what are the next meaningful steps? To answer this question, I offer two themes: 1, access to prenatal care, and 2, use of relevant quality data. The significance of access to care depends on how the issue of maternal mortality is framed. The findings of the Texas Maternal Mortality Review Committee from last year were that the majority of the pregnancy-related deaths could be prevented. Similar to other reports, there was a significant racial disparity. Women of color were significantly more likely to die when compared to non-Hispanic White woman, and the majority of these deaths under review were Medicaid-funded at delivery.

So how can we address pregnancy-related deaths that are potentially preventable among women of color and receiving Medicaid funding? I offer our experiences from Parkland Hospital as one strategy. Parkland is unique. It represents a public hospital serving almost exclusively medically indigent women. Of the more than 12,000 women delivered last year, 90 percent were Medicaid funded. At Parkland, there has been a concerted effort to improve access to prenatal care. And today there are 10 clinics located throughout Dallas County. These clinics are in the neighborhoods where our patients live and are often colocated with pediatric services to enhance patient use.

Of the more than 12,000 women delivered in 2018, 97 percent accessed prenatal care. These clinics also serve as the medical home for our patients with important followup for services like blood pressure surveillance and depression screening after delivery. The system has administrative and medical oversight that is seamless. The same protocols are used by nurse practitioners at all 10 sites, and this guarantees consistent care that is standardized for referrals of high-risk women to a centrally located clinic.

Not all complications, though, can be identified before delivery. At the hospital a multidisciplinary team of nurses and providers work together according to standardized protocols. Individualized care is stratified based upon medical acuity and risk for complications. For example, we have standardized management strategies for response to obstetric emergencies like hypertension and hemorrhage. This emphasizes a culture of safety with continuous quality improvement. Recently, we have implemented an urgent request to the bedside function with our nursing partners to electronically track and monitor a timeliness to a patient's bedside for immediate care.

These efforts dovetail Parkland's participation in the newly formed regionalization program known as Maternal Levels of Care, as well as the Alliance for Innovation in Maternal Health. These initiatives share similar principles with California Maternal Quality Care Collaborative. Putting this together, access to prenatal care is considered one component of a comprehensive public healthcare system. It is community-based and extends to the inpatient care setting for a standardized approach.

An example of how access to prenatal care translates to improved outcomes, the maternal mortality rate during pregnancy and that delivery for the 3 percent of women that did not access prenatal care is more than 25-fold higher than those that had prenatal care access at our hospital.

Moving to the second theme, how do we measure quality? An obvious method is to track rates of maternal mortality. This unfortunately is easier said than done, and our hope is the recent passing of the 2018 legislation is a key step forward in this effort.

Another method of assessing quality is measuring rates of severe maternal morbidity, or SMM rates. These are unexpected outcomes that result in significant consequences to a woman's health like hysterectomy or transfusion. These rates are almost universally derived from hospital billing codes simply because no other data sources are available. We must consider the potential unintended consequences of tracking such metrics, especially transfusion, because this can become a perverse surrogate of quality. If a provider hesitates or, worse, withholds a transfusion of blood, then a patient may have a risk of mortality. It is critical we use relevant data to guide our policies.

Thank you again for this opportunity to share our experiences from Parkland and our efforts to establish access to care. Also thank you for your understanding of the importance of the relevant quality data. Ultimately these efforts can lead to safer deliveries of mothers and their infants for the future generations of our country.

Thank you.

[The prepared statement of Dr. Nelson follows:]

UTSouthwestern
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David Nelson, MD
Assistant Professor

Department of Obstetrics and Gynecology
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September 6, 2019

Chairwoman Eshoo, Chairman Pallone, Ranking Member Walden, Ranking Member Burgess, and distinguished members of the Energy and Commerce Subcommittee on Health, thank you for inviting me to speak with you today on behalf of Parkland Hospital and the University of Texas Southwestern Medical Center on the hearing entitled, "Maternal Health: Legislation to Advance Prevention Efforts and Access to Care."

For introduction, I am trained as an Obstetrician-Gynecologist as well as having sub-specialty fellowship training in Maternal-Fetal Medicine. Currently, I am an Assistant Professor at the University of Texas Southwestern Medical Center and serve as the Chief of Obstetrics at Parkland Hospital in Dallas, Texas. Parkland Hospital is one of the largest single, public maternity services in the country with 12,671 women delivered at our facility last year. This delivery volume at Parkland Hospital represents approximately 1 out of every 300 new Americans born each year, and in total, represents more births than occurred in ten separate states in the country last year.

I would like to share my appreciation of this committee for their efforts and celebrate the federal legislation, Preventing Maternal Deaths Act, signed into law on December 21, 2018, that encourages state programs to establish Maternal Mortality Review Committees (MMRC). By supporting multidisciplinary local expert review, and aligning with community advocates, this is a meaningful step forward in addressing the national crisis of maternal mortality in the United States; however, as you know our work is not done. A single preventable, pregnancy-related death is one too many, and as Mr. Charles Johnson stated last year to this committee that, "No statistic that [sic] can quantify what [it] is like to tell an 18 month old that his mother is never coming home." So, what are the next meaningful steps in advancing maternal health and prevention of mortality? As a provider of maternal care services, I offer two themes which in my view are two important pieces to help solve this puzzle and prevent this tragedy: (1) access to prenatal care, and (2) use of relevant quality data to ensure well-informed decisions.

First, the significance of "access to care" depends upon how the issue of maternal mortality is framed. In 2013, the 83rd Texas Legislature established the Maternal Mortality and Morbidity Task Force for my home state of Texas. The most recent findings of this MMRC were reported in September 2018. This effort, chaired by Dr. Lisa Hollier—immediate past-president of the American College of Obstetricians and Gynecologists (ACOG)—identified that the majority of pregnancy-related deaths could be prevented. And, similar to other reports, there was a significant racial disparity with women of color significantly more likely to die when compared with non-Hispanic white women. Notably, the majority (68%) of maternal deaths in Texas under review were Medicaid-funded at delivery. So, how can we address pregnancy-related maternal deaths that are potentially preventable, among women of color, and receiving Medicaid-funding? I offer our experiences from Parkland Hospital as one strategy.

Parkland Hospital is unique as it represents a public hospital serving almost exclusively medically-indigent women. Of the 12,671 women delivered last year, 90% were Medicaid-funded. At Parkland, there has been a concerted effort to improve access to and use of prenatal care for decades. The goal has been to establish a program of seamless care beginning with enrollment during the prenatal period and extending through delivery at Parkland into the postpartum period. Today, 10 prenatal clinics are strategically located throughout the 909 square-miles of Dallas County to provide convenient access for entry into prenatal care. These 10 clinics are located in the neighborhoods where our patients live and are often co-located with comprehensive medical and pediatric services to enhance patient use. Indeed, of the 12,671 women delivered in 2018 at Parkland Hospital, 97% accessed prenatal care prior to delivery. Importantly, we were then able to identify conditions placing mothers and their infants at high-risk for complications including hemorrhage, infection, hypertension, diabetes, and HIV long before the mother presented for delivery. Moreover, these 10 clinics serve as the "healthcare home" for our patients. Also, these same clinics serve as the follow-up location after delivery for important postpartum services to include postpartum depression screening, mental health care, and family planning services.

Because the entire clinic system as well as the hospital is operated by Parkland, administrative and medical oversight is seamless. The same prenatal protocols are used by nurse practitioners at all 10 clinic sites to guarantee consistent, protocol-based care that includes standardized referrals of high-risk women to a centrally-located prenatal clinic specifically designed for women with high-risk pregnancy complications. This high-risk pregnancy clinic includes specific programs for women with conditions such as diabetes, infectious disease, placental abnormalities, and hypertensive disorders to just name a few. Each clinic is staffed by maternal–fetal medicine faculty with special interests in such complications. Importantly, Parkland has a closed medical staff, and all attending physicians are employed by the University of Texas Southwestern Medical Center Department of Obstetrics and Gynecology, whose members adhere to agreed-on practice guidelines using an evidenced-based outcomes approach. Many of these strategies can be found in the textbook *Williams Obstetrics*—now in its 25th edition—which is the most popular obstetric textbook worldwide. This reference text has been based at our institution for the last 40 years, and 17 of the faculty help co-author the current edition. We are fortunate to have such talented, local expertise to provide care for our patients as well as train future healthcare providers to include advanced practice providers, nursing students, medical students, resident physicians, and fellows.

Not all high-risk complications can be identified within the prenatal period. Within the hospital setting, a multidisciplinary team of nurses, advance practice providers, resident physicians, Maternal-Fetal Medicine fellows, and faculty work together according to standardized protocols alongside obstetric anesthesiologists, certified registered nurse anesthetists, and pediatric teams. Individualized care is stratified within labor and delivery based upon medical acuity and risk for complications. For example, we have standardized management strategies for response to obstetric emergencies—such as hypertension and obstetric hemorrhage—that have been in place for decades. This culture of safety emphasizes careful attention for hypovolemia due to blood loss. Dr. Jack Pritchard, recognized last year by Ranking Member Burgess, proudly established the "30/30 rule" for observation of blood counts and urine output using simple testing with reliable results. This grounded, and effective, approach has been honed over generations with continuous quality improvement and focus on patient-centered outcomes for safety. Recently, we have implemented an "urgent request to the bedside" with our nursing partners to electronically track and monitor timeliness to a patient's bedside for immediate care. These efforts dovetail Parkland Hospital's participation in the newly formed regionalization program known as "Maternal Levels of Care" as well as the Alliance for Innovation on Maternal Health (AIM) Plus program in Texas. Both are now national initiatives to standardize readiness, recognition, response, and reporting of high-

risk conditions placing mothers at risk for death and share similar principles with the California Maternal Quality Care Collaborative organization.

Putting this all together, this geographically-based public health prenatal care program specifically targets all populations of pregnant women to identify the high-risk conditions *before* a woman presents for delivery. Although this reduces her individual risk, it does not eliminate the potential for unanticipated obstetric emergencies. When such unexpected, life-threatening events arise, prompt identification and mobilization of resources is exercised. These same principles are part of the foundation of the AIM collaborative endorsed by our national professional organizations, such as ACOG. And more recently, we are encouraged by the August 21, 2019, release of The Joint Commission 13 new elements of performance (EPs) applicable to Joint Commission-accredited hospitals due to take effect July 1, 2020. These new requirements are within the Provision of Care, Treatment, and Services (PC) chapter at PC.06.01.01 and PC.06.01.03 for management of hemorrhage as well as hypertension and mirror much of our existing practices as described. Taken altogether, "access" to prenatal care is considered one component of a comprehensive and orchestrated public health care system that is community-based and extends to the inpatient care setting using evidenced-based, standardized practices that are monitored for quality assurance.

Turning now to the second theme, how do we then measure such quality? An obvious method is to track rates of maternal mortality. This unfortunately is easier said than done and putting our collective arms around maternal mortality data is only the beginning. At present, much of the data tracking for maternal mortality is limited to use of coded death data from maternal death certificates. The use of such coded data is fraught with potential error due to miscoding. As noted last year in this committee, half (50.3%) of obstetric-coded deaths in Texas during 2012 actually showed no evidence of pregnancy within 42 days. To be clear, this is not an indictment of the current processes involved in compiling such data, or of those that have dedicated their life to this important effort, but rather a point to emphasize that it is extremely difficult to confirm cases from afar. Moreover, this underscores the need for significant resources to accurately collect such critical information. Compare this effort to the existing infrastructure already used for other recognized significant public health issues. One example is tuberculosis (TB). For Dallas County alone, there are more than 50 dedicated staff within the Dallas County Health Department tracking, reporting, and actively managing cases of TB. These heroes within the DCHD provide follow-up, chart abstraction, reporting, and daily direct observed therapy located at a patient's home, place of employment, or even under a bridge. The same level of infrastructure has not yet been put forward for maternal death. We need sustained support to actively identify these complex cases, and ultimately, provide good quality data to make well-informed decisions. Our hope is that the recent passing of the 2018 Preventing Maternal Deaths Act is a key step forward in this effort.

A second method of assessing "quality" of maternal care is measuring rates of severe maternal morbidity (SMM), or *near-misses*. These are unexpected outcomes that result in significant short- or long-term consequences to a woman's health, such as hysterectomy and transfusion. These SMM rates are also almost universally derived from hospital billing codes–simply because no other data sources are available. Moreover, we must consider the potential unintended consequences of tracking such "SMM" metrics, especially transfusion of blood. Blood transfusion is the single greatest contributor to the SMM rate both at Parkland Hospital and nationally. In 2014, blood transfusion accounted for more than 80% of the SMM rate in the United States. We caution, however, that this can become a perverse surrogate of quality. If a provider hesitates, or worse, withholds a transfusion of blood to a patient to avoid the "label" of SMM, then there is an unintended risk of mortality. Indeed, the reason obstetric hemorrhage is deadly is because of failure to promptly restore a woman's circulating blood volume. This can have far-reaching consequences in quality measurement across hospitals. For example, a hospital with a high rate of

transfusion could be considered inferior to a hospital with a low rate of transfusion. Is it possible that this evaluation is upside down? The hospital with the higher transfusion rate may actually be higher in quality than the hospital with a low rate of transfusion as measured by mortality. We must be careful to not inadvertently worsen mortality while trying to avoid a surrogate of morbidity by careful selection of quality metrics.

In closing, thank you again for this opportunity to share our experiences from Parkland Hospital and our efforts to establish prenatal care access. Also, thank you for your understanding of the importance of relevant quality data and reporting. To advance the national effort in improving both maternal mortality and morbidity, it is critical that accurate, relevant clinical data are reported and are used to guide decisions for healthcare policy. Ultimately, these efforts can lead to safer deliveries of mothers and their infants for the future generations of our country.

Thank you,

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Ms. ESHOO. I thank you, Doctor.

Usha Ranji, you are recognized for your 5 minutes of testimony. You can proceed, and thank you.

STATEMENT OF USHA RANJI

Ms. RANJI. Good morning, Chairwoman Eshoo, Ranking Member Burgess, and members of the committee. I am Usha Ranji, Associate Director of Women's Health Policy at the Kaiser Family Foundation, a nonprofit, nonpartisan organization that provides health policy analysis.

Thank you for inviting me to testify about the role of Medicaid coverage for pregnant and post partum women. I will highlight three main areas: research on the importance of health coverage for babies and mothers; the role of State policy decisions on access to care during and after pregnancy; and some of the current efforts to close gaps in post partum coverage.

Medicaid is the primary source of health coverage for low-income women and the major financier of maternity care. In the mid-1980s in response to rising rates of infant mortality, Congress and States saw an opportunity to use Medicaid to improve birth outcomes by expanding the program to more low-income pregnant women and children. Today, the program finances more than 4 in 10 births nationally and more than half in many States.

Research shows that women with Medicaid coverage consistently fare better than uninsured women on several measures of access, including greater use of timely prenatal care. More recent research suggests that Medicaid expansion is associated with a narrowing in racial and ethnic disparities in infant outcomes. Our work at KFF finds that low-income women with Medicaid use care at rates that are comparable to their privately insured counterparts, and there is broad agreement that access to care before and after a pregnancy is essential for prevention, early detection, and treatment of some of the conditions that raise a woman's risk for pregnancy complications.

Medicaid plays a critical role in promoting access to that care. Maternity care is one of the benefits that all States must cover under Medicaid. Eligibility for Medicaid is based on decisions that States make within Federal guidelines. Federal law requires that all States cover pregnant women with incomes up to 138 percent of the Federal poverty level, which is just under $30,000 a year for a family of three, but most States cover pregnant women with higher incomes, recognizing the importance of coverage during the perinatal period.

Yet after a woman gives birth, there is no requirement to continue Medicaid coverage beyond 60 days post partum. Historically many women would become uninsured in the months following pregnancy as a result. But policymakers have opportunities to improve coverage for post partum women and their families. States across the country have made different decisions about whether to expand Medicaid under the ACA.

In the 14 States that have not changed their Medicaid program eligibility levels, post partum women cannot stay on the program unless they requalify as parents. However, in these States eligibility for parents is much stricter than for pregnant women. For ex-

ample, in some States, a new mother would lose Medicaid coverage 2 months after giving birth if she and her partner have income above $4,000 a year.

Federal subsidies are available to help——

Ms. ESHOO. Can you say that one more time?

Ms. RANJI. Sure. When we look at the eligibility criteria for parents, it is much lower than it is for pregnancy under Medicaid, and it is State-determined, and in all States, it is actually lower for pregnancy, and in some States, it is as low as $4,000 a year for a family of three.

Ms. ESHOO. Wow.

Ms. RANJI. Federal subsidies are available to help some lower-income mothers purchase private marketplace insurance. But when a mother's income falls between her State's Medicaid level for parents and the poverty line, she does not qualify for either Medicaid or private insurance subsidies.

Today, a handful of States are exploring options to improve Medicaid coverage for women after pregnancy. All States can set and raise the income eligibility levels for parents, and that is without adopting the Medicaid expansion.

Earlier this year, Illinois approved extension of post partum coverage under Medicaid to 1 year. Policymakers in Missouri and California have also proposed extending coverage for mothers in need of substance abuse treatment and mental healthcare, respectively. These are a few examples of efforts to enhance care and coverage for low-income moms.

Madam Chair, members of the committee, the research is clear. Having health coverage before, during, and after pregnancy promotes access to care. And lack of coverage is associated with poor health outcomes. Furthermore, our understanding of the health needs of women shows that the post partum period has evolved beyond one visit, yet in more than a dozen States, Medicaid coverage ends 2 months after childbirth, even though for a mom, her need for care does not end then.

In short, there is strong empirical evidence to support what families across the country already know and experience on a daily basis, that a mother's ability to care for her own health and well-being is integral to her ability to do the same for her children.

Thank you.

[The prepared statement of Ms. Ranji follows:]

Medicaid and Health Coverage for Low-Income Women in Pregnancy and After Childbirth

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The Kaiser Family Foundation

Prepared for the

Committee on Energy and Commerce, Subcommittee on Health

U.S. House of Representatives

Hearing on

Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care

September 10, 2019

Introduction

Good morning, Chairwoman Eshoo, Ranking Member Burgess, and Members of the Committee. I am Usha Ranji, Associate Director of Women's Health Policy at the Kaiser Family Foundation. Thank you for inviting me to testify about the role of Medicaid coverage for pregnant and postpartum women. The Kaiser Family Foundation, KFF, is a non-profit organization that provides non-partisan health policy analysis, polling, and journalism (Kaiser Health News) to inform policymakers, the media, the health policy community and the public. We are not associated with Kaiser Permanente or Kaiser Industries. In my testimony today, I will summarize KFF's research on Medicaid and postpartum coverage (Appendix 1) and address the following key points:

- Research shows that coverage before, during, and after pregnancy facilitates access to care that supports healthy pregnancies as well as positive maternal and infant outcomes after childbirth.
- Medicaid is the primary source of health coverage for low-income women, and a major financer of maternity care, covering more than four in ten births in the U.S. Research finds that for low-income women, Medicaid is comparable to private insurance in terms of many measures of access to care.
- States set eligibility criteria for Medicaid within federal guidelines. The federal minimum income level for pregnancy-related eligibility is effectively 138% of the federal poverty level, but many states set higher thresholds, recognizing the importance of coverage during the perinatal period. Pregnancy-related coverage ends after 60 days postpartum. Infants born to women with Medicaid coverage for pregnancy are eligible for Medicaid for the first year of life.
- Even without expanding Medicaid under the Affordable Care Act (ACA), states can expand access to Medicaid by broadening parental coverage. Prior to having the option to expand Medicaid eligibility under the ACA, 17 states and DC set income thresholds for parents that were at the poverty level or higher.
- Today, eligibility for women after childbirth varies because policymakers have made different decisions about whether to expand Medicaid as well as whether to increase income thresholds for parents -- even in states that have not adopted the Medicaid expansion.
- These state choices affect women's ability to stay on Medicaid after pregnancy ends. In expansion states, many postpartum women can remain on the program and those who do not qualify for Medicaid typically qualify for subsidies to assist with the costs of obtaining private insurance in state Marketplaces.
- To retain Medicaid coverage after pregnancy in the 14 non-expansion states, postpartum women need to requalify under their state's parent eligibility criteria, which are much lower than the income thresholds for pregnancy (from 17% to 100% of the federal poverty level).
- Women with incomes at or above 100% of poverty can qualify for ACA marketplace subsidies in all states, but in states with lower parental coverage thresholds, women with incomes between the state Medicaid eligibility level for parents and 100% of poverty may have no pathway to affordable coverage. This has implications for their ability to access needed health care services during this important life stage.
- Some states are undertaking efforts that rely on Medicaid to strengthen postpartum care and coverage for women. There are multiple initiatives under way to target services to different groups who have had a Medicaid funded birth and who may be more vulnerable, including those affected by substance use and mental health challenges.

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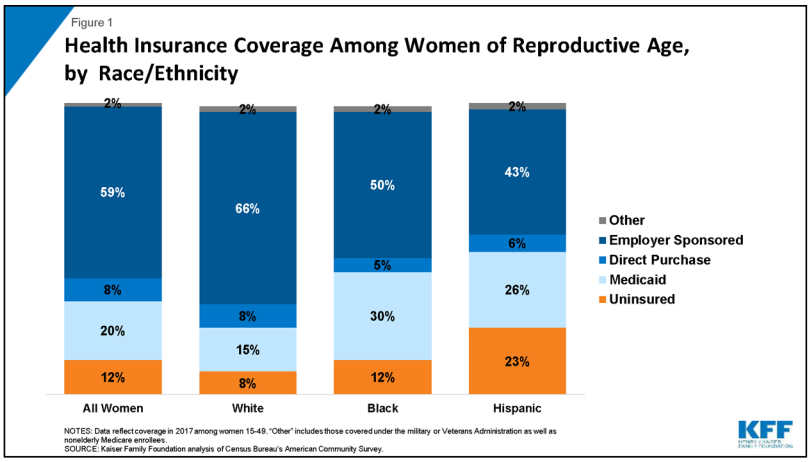
Research shows that coverage before, during, and after pregnancy is important to facilitate access to care that supports healthy pregnancies, as well as positive maternal and infant outcomes after childbirth. Research finds that for low-income women, Medicaid is comparable to private insurance in terms of many measures of access to care.

Efforts to improve coverage for pregnant women began in the mid-1980s in response to rising rates and stark disparities in infant mortality and low-birthweight. Led by the Southern Regional Taskforce on Infant Mortality, governors saw an opportunity to use Medicaid to play a role in improving birth outcomes by providing coverage to uninsured, low-income pregnant women as well as expanding eligibility for children. The federal government then raised the eligibility floor for Medicaid coverage and provided states with incentives to extend coverage for pregnancy even above the minimum requirement. This led to a substantial increase in Medicaid's coverage of low-income pregnant women, infants, and children up to age six and declines in the uninsured.[1]

Research has shown that people with Medicaid coverage fare much better than their uninsured counterparts on several measures of access to care. One synthesis[2] of peer-reviewed literature concluded that the expansions for pregnancy eligibility contributed to "improvements in prenatal care use," while more recent analyses of federal data from the Pregnancy Risk Assessment Monitoring System (PRAMS) found significantly higher rates of timely and adequate prenatal care among pregnant women covered by Medicaid compared to uninsured women.[3,4] Mothers covered by Medicaid are much more likely than those who are low-income and uninsured to have a usual source of care, recent doctor and dental visits, and other preventive services, such as screenings for breast and cervical cancers.[5] Our own work at KFF finds that low-income women with private insurance use care at rates that are comparable to their privately-insured counterparts and significantly higher than those who are uninsured.[6] Low-income women in Medicaid were also significantly less likely than those who are privately-insured to report that cost was a barrier to care.[7]

Today, there is continued need to improve maternal and infant health and a growing urgency to develop policy and programmatic responses to the rise in maternal mortality and morbidity and the wide racial and ethnic disparities in maternal outcomes.[8] Medicaid plays a major role in health coverage for all low-income women, but particularly for women of color because they are more likely to be low-income (Figure 1). There is greater recognition that access to health care *throughout* a woman's reproductive years, including before and after a pregnancy, is essential for prevention, early detection, and treatment of some of the conditions that place women at higher risk for pregnancy-related complications, including cardiovascular disease, diabetes, and chronic hypertension. And, there is strong empirical evidence to support what families across the country know and experience on a daily basis - that a mother's ability to care for her own health and well-being is integral to her ability to do the same for her children.[9]



Medicaid is the primary source of health coverage for low-income women, and a major financer of maternity care, covering more than four in ten births in the U.S.

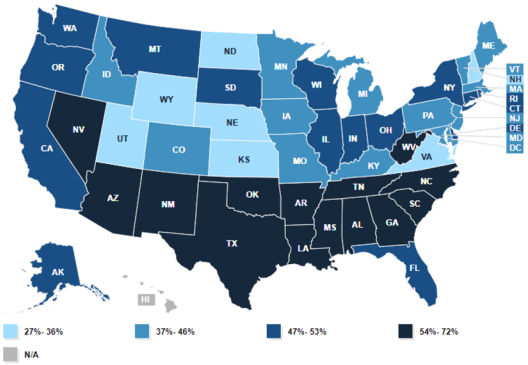
Medicaid has historically prioritized coverage for children and pregnant women. Children make up 43% of the Medicaid population overall, and among adult women on the program, two-thirds (67%) are in their reproductive years (19 to 49). The program now finances more than four in ten (43%) births nationally[10] and more than half in some states (Figure 2).[11]

While maternity care is a mandatory benefit that states must cover, states have discretion to determine the specific scope of maternity care benefits under Medicaid. All states cover prenatal care and delivery services. States that have expanded Medicaid eligibility under the ACA must cover all preventive services recommended by the United States Preventive Services Task Force (USPSTF) and Women's Preventive Services Initiative (WPSI) for beneficiaries that qualify as a result of the expansion. These include many pregnancy-related services, such as prenatal visits, screening tests, and folic acid supplements. It also includes coverage for breastfeeding supports that extend to the postpartum period, with coverage for lactation consultation and breast pumps. Many states cover substance use treatment and home visiting services, and just a few now cover doula services.[12]

Under federal law, women who receive pregnancy-related services under Medicaid cannot be charged for any share of the cost of care, but after the postpartum period, that can change. A large body of evidence shows that even nominal cost sharing impedes access to care for low-income women and families. For low-income mothers, the lower cost sharing and absence of deductibles under Medicaid can be a major advantage over private insurance.

Figure 2

Medicaid is the Leading Financer of Maternity Care in Many States



NOTE: In the 2016 Kaiser Family Foundation Medicaid Budget Survey, states were asked to report the share of all births in the state that were financed by Medicaid in the most recent 12 month period for which data were available. States reported data from 2010-2016, which varied by calendar year, state fiscal year, and federal fiscal year.
SOURCE: Kaiser Family Foundation, Implementing Coverage and Payment Initiatives: Results from a 50-State Medicaid Budget Survey for State Fiscal Years 2016 and 2017

States set income eligibility criteria for Medicaid within federal guidelines, and most extend coverage to pregnant women above the federally-required minimum of 138% of poverty, recognizing the importance of coverage during the perinatal period. Pregnancy-related coverage ends after 60 days postpartum. Infants born to women with Medicaid coverage for pregnancy are automatically enrolled in Medicaid for the first year of life.

Federal law requires that all states extend eligibility to pregnant women with incomes up to 138% of the federal poverty level (FPL), which equals $29,435 for a family of three; however, most states go beyond this minimum threshold, ranging from 138% to 380% FPL (see Table 1 in the Appendix).

Pregnancy-related coverage for the mother must last through 60 days postpartum[13] and the infant is eligible for Medicaid for the first year after birth. Following the 60 days postpartum period, the decision about coverage for women is up to the states and depends in part of whether the state has opted to expand Medicaid as allowed by the ACA or where they set parental income eligibility levels. Wisconsin, for example, has not expanded Medicaid under the ACA, but extends parental coverage to 100% FPL, which is higher than most other non-expansion states.

Infants born to women who had Medicaid during pregnancy are automatically enrolled in Medicaid for their first year. This allows access to numerous preventive services for many low-income families, including newborn screenings, immunizations, and well child visits. Notably, research finds that when mothers have Medicaid, there is greater retention of coverage for children as well.[14]

Historically, many postpartum women would become uninsured in the months following pregnancy because they had no pathway to coverage. Even today, the availability of Medicaid coverage for women in the postpartum period varies considerably by state.

Prior to implementation of the ACA, many women with Medicaid during pregnancy would become uninsured after the 60 days postpartum period ended. After this time, women would need to requalify for Medicaid as a parent, and all states set much lower income eligibility thresholds for parents, compared to pregnant women. Women with incomes above their state's parental eligibility level would likely be disenrolled from Medicaid after the postpartum coverage ended.

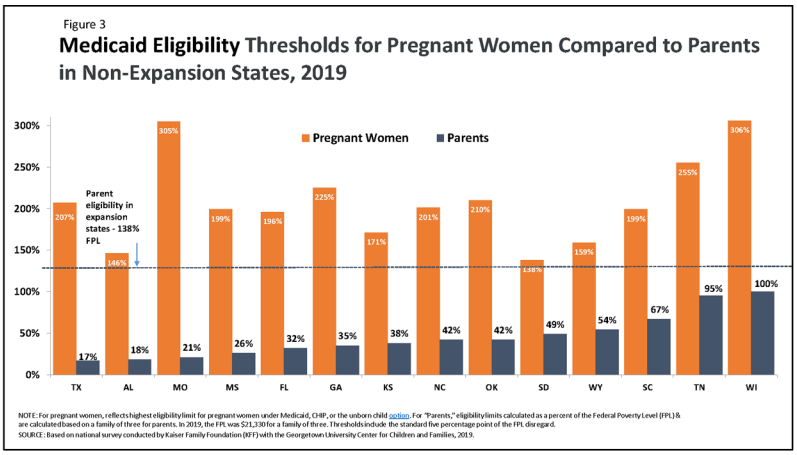
There is significant instability in health coverage among low-income women, a phenomenon known as "churning," due in part to the volatility of employment and income levels for this population. A national study of women's insurance coverage during the perinatal period in the pre-ACA era found that more than half of women covered by Medicaid or CHIP at the time of delivery were uninsured at least one of the six months following delivery. This was far higher than the rate for women who had private insurance at the time of delivery (55% Medicaid compared to 35% private).[15]

Even without expanding Medicaid under the ACA, states can expand access to Medicaid by broadening parental coverage. Prior to having the option to expand Medicaid eligibility under the ACA, 17 states and DC set income thresholds for parents that were at the poverty level or higher.

In states that have implemented Medicaid expansion, there is alignment between the minimum income eligibility level for pregnancy and the expansion threshold at 138% of poverty. As a result, qualifying postpartum women in these states with incomes up to 138% of poverty can retain Medicaid coverage after pregnancy-related coverage ends. Continuous Medicaid coverage can promote greater continuity of care by allowing postpartum women to remain within the same provider network and care system that she saw during pregnancy. Those with higher incomes can qualify for federal subsidies in the Marketplaces up to 400% of poverty. There is a pathway to coverage and assistance for most postpartum women in expansion states.

Women with incomes above 100% of poverty can qualify for ACA marketplace subsidies in all states, but in states with very low parental coverage thresholds such those in many non-expansion states, women with incomes between the state Medicaid eligibility level for parents and 100% of poverty may have no pathway to affordable coverage. This has implications for their ability to access needed health care services during this important life stage.

In the 14 states that have not changed their Medicaid program eligibility levels, postpartum women need to requalify for Medicaid under the parental eligibility category to stay on the program after pregnancy coverage ends. However, Medicaid income eligibility levels for parents are much lower than for pregnant women, ranging from 17% to 100% of poverty in those states (Figure 3).



Marketplace premium subsidies are only available for those with incomes between 100% and 400% of poverty. Therefore, if a postpartum woman's income is above the state's Medicaid eligibility level for parents but below the federal poverty line ($21,330 annually for a family of three), she would not qualify for either Medicaid or private insurance subsidies. As a result, many women in non-expansion states become uninsured after pregnancy-related coverage ends (60 days postpartum) because they do not have access to Medicaid or federal subsidies. We refer to this group as falling into the "coverage gap."

Some states are now undertaking efforts that rely on Medicaid to strengthen postpartum care and coverage for women. There are multiple initiatives under way to target services to different groups of women who have had a Medicaid funded birth and who may be more vulnerable, including those affected by substance use and mental health challenges.

Some states are seeking to extend Medicaid coverage to postpartum women with related health challenges. For example, policymakers in Missouri have submitted a waiver application to the federal government to help finance a Medicaid extension for postpartum women in need of substance use treatment. The CDC found a four-fold increase in the number of women with opioid use disorder at labor and delivery between 1999 and 2014.[16]

The American College of Obstetricians and Gynecologists (ACOG) recommends that postpartum women with substance use disorders should have access to and continue use of treatment services, including pharmacotherapy. The postpartum period can be a particularly susceptible time for relapse, with loss of insurance and access to care considered a potential trigger for relapse. CMS currently has a funding opportunity for up to 12 states to develop programs to care for pregnant and postpartum women with opioid use disorder.

California has approved a policy to extend Medicaid coverage for a year to any individual with a maternal mental health condition. For a new mother who needs medications, for example, to manage postpartum depression, this extension of Medicaid coverage could fill an otherwise unaffordable gap, particularly since Medicaid would not impose cost sharing charges. Postpartum depression can occur anytime in the first year after delivery, making the frequency of well child visits during that year a chance for identifying and screening for maternal depression. Recognizing this opportunity, in 2016 CMS approved coverage of postpartum depression screening for women during well child visits. Under the CMS initiative, if the woman is enrolled in Medicaid, treatment services can be covered under Medicaid. If a woman is uninsured, for example in a non-expansion state, in order for Medicaid to cover the treatment under the child, the treatment must involve the child, such as family therapy.

Earlier this year, Illinois enacted an extension of Medicaid postpartum coverage to one year for women with incomes up to 200% of poverty. The state is in the process of applying for an 1115 waiver to procure federal financing assistance.

These are just a few examples of the ways that states can leverage Medicaid to enhance care and coverage for low-income pregnant women and after childbirth when they have become mothers.

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For women, the need for health care services does not end two months after childbirth, even though their health coverage might. The year after a delivering baby is a not only a medically vulnerable time for many women, but even for those who appear to be healthy, postpartum care in the year after having a child is critical. The evidence on this is clear ─ having health coverage promotes access to care, especially for low-income people, and the lack of coverage is associated with poorer health outcomes. The availability of coverage to postpartum women, particularly for those who are low-income can improve their use of critical services and lead to better outcomes for women and their families.

Appendix

See attached Appendix: Kaiser Family Foundation, "Expanding Postpartum Medicaid Coverage."

References

[1] Rowland, et al. The Key to the Door: Medicaid's Role in Improving Health Care for Women and Children." *Annual Reviews of Public Health*, 1999.
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[3] MACPAC, "Access in Brief: Pregnant Women and Medicaid," November 2018.
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[6] Kaiser Family Foundation, Medicaid's Role for Women, March 2019.
[7] Kaiser Family Foundation, Medicaid's Role for Women, March 2019.

[8] Centers for Disease Control and Prevention, "Racial/Ethnic Disparities in Pregnancy-Related Deaths — United States, 2007–2016." *MMWR,* September 6, 2019.

[9] Georgetown University Health Policy Institute Center for Children and Families, Health Coverage for Parents and Caregivers Helps Children, March 2017.

[10] Centers for Disease Control and Prevention. "Births: Final Data for 2017." *National Vital Statistics Report*, November 7, 2018.

[11] Kaiser Family Foundation, State Health Facts: Medicaid Enrollees by Enrollment Group, 2014.

[12] Kaiser Family Foundation, Medicaid Coverage of Pregnancy and Perinatal Benefits, April 2017.

[13] Pregnancy coverage under Medicaid ends for the woman on the last day of the month that is 60 days after the pregnancy ends.

[14] Sommers BD. "Insuring children or insuring families: do parental and sibling coverage lead to improved retention of children in Medicaid and CHIP?" *J Health Econ,* November 2006.

[15] Daw, et al. "Women in the United States Experience High Rates of Coverage Churn in Months Before and After Childbirth." *Health Affairs*, April 2017.

[16] Centers for Disease Control and Prevention, "Opioid Use Disorder Documented at Delivery Hospitalization." *MMWR,* August 10, 2018.

Ms. ESHOO. Thank you, Ms. Ranji.

Those are some startling numbers, that it sounds like you have a child and then the system becomes punitive.

The witnesses have now concluded their opening statements. We are going to move to Member questions. Members each have 5 minutes to ask questions of our witnesses, and I will start by recognizing myself for 5 minutes.

There are many layers to this, but I want to go back to where we began with Ms. Irwin and many of the things that she said in her testimony to us. She said that we need to hold healthcare professionals accountable for improving the quality of care and ensuring equity.

Her daughter has had, I think, more education as one person than most Members sitting on this dais. So she was not low income. She was not uneducated. And it seems to me that racial bias is alive and well in this area of giving birth and what happens post partum.

Let me ask Dr. Harris: What is the AMA doing about this? I mean, it seems to me that you can track the hospitals where women of color frequent those hospitals than others. I think the statistics are really very clear. This is not a foggy picture. We heard Dr. Nelson talk about their very purposeful training.

So what is the AMA doing before you came to the witness table? Have you targeted the hospitals? Is it red light and siren to do something that addresses this? Maybe you can just briefly explain to us what the AMA is doing, and if you are not, what you plan to do, to be fair.

Dr. HARRIS. Thank you, Chairwoman.

From the AMA's standpoint, we would see our audience as impacting the physician community. Certainly, I heard from Dr. Howell, though, that there is value in hospitals developing standards. And it would be the recommendation that those standards include some metrics for evaluation.

Ms. ESHOO. That hasn't before begun yet, in terms of AMA partnering with hospitals and doctors?

Dr. HARRIS. No, we have not worked with hospitals to develop any specific metrics. But we are starting internally, as I mentioned earlier. We have just hired Dr. Aletha Maybank. She is our first——

Ms. ESHOO. That is a first step. It's a first step.

Dr. HARRIS [continuing]. Chief health equity officer.

And that is building on the work that we already have been working on from our Commission to End Disparities.

Ms. ESHOO. Thank you.

Obviously, the causes of pregnancy-related deaths differ. The doctors on the panel, what I want you to instruct us about, because we know heart disease and stroke cause most of the deaths overall. Obstetrics emergencies, severe bleeding, amniotic fluid, embolism cause the most deaths at delivery, but severe bleeding, high blood pressure, and infections are the leading causes in the week after delivery, and weakened heart muscle is the leading cause of deaths 1 week to 1 year post partum.

This is in our memorandum from the committee staff.

How best do you recommend to us to pursue each one of these categories? And for the life of me, I don't understand why the doctors that are trained in this—I mean, this is a specialty, as our ranking member is—that these deaths are a result of these areas, and, as you said, Dr. Howell, they are preventable. Where have we gone wrong? Have they forgotten what they learned? Is their training not up to snuff?

Can you be instructive to us on that, Dr. Howell?

Dr. HOWELL. Sure. Sure. So you bring up a really important point, which is what we are pushing for through ACOG and the Alliance for Innovation on Maternal Health. We need standardized care practices based on evidence-based medicine——

Ms. ESHOO. And that is not the case now?

Dr. HOWELL. Well, we do. So AIM has started a few years ago. And it is growing in numbers. It now reaches 27 States, and these are partnerships with hospitals and health systems, departments of health, caregivers to try to work together to improve quality and safety. And we don't just target the most preventable causes like hypertension, you know, blood clots, et cetera. We also target additional things.

We have come up with an AIM bundle on how we might address reducing disparities in hospitals and health systems with some key steps that we recommend. We also have, as part of this effort—it is very much a data-driven effort—so we have quality—we have measures and metrics that we are trying to use to utilize and examine how hospitals are doing, which we think is a very important part. So we can't only implement, but we have to evaluate to make sure what we are doing is the most meaningful way.

So that is one big effort that has been going on for about, I believe AIM started in about 2015, and it is very much a partnership.

Ms. ESHOO. Well, thank you very much.

My time is up, but I also think the American Hospital Association has to lean in on this as well because the statistics can be traced right back to where women of color, what hospitals they go to, and the number of deaths there or the tremendous complications that follow. But my time is up.

So the Chair will now recognize the distinguished Dr. Burgess, the ranking member of our subcommittee, for his 5 minutes of questions.

Mr. BURGESS. Thank you.

Dr. Nelson, you look like you wanted to say something. Can I give you a moment to respond to previous discussion?

Dr. NELSON. I agree with Dr. Howell that part of the issue is our view. We have not had the full view that we need to see. There are the issues surrounding pregnancy, delivery, and the now subsequently post partum. One of the issues we need to recognize is the process measures that need to be in place, meaning our response that is consistent to emergencies like hypertension and hemorrhage, things like a massive transfusion protocol where we directly get blood to the patient's bedside that needs help, processes like simulation to train our team members in a safe environment. And then we need performance measures that are meaningful to track data and identify quality and sincere efforts to improve that space.

That, I think, is a major step forward for us collectively that we are trying to see.

Mr. BURGESS. And since you are talking about it—and, once again, I want to thank you. You were very kind to show me around the new unit at Parkland Hospital. They have just moved in to new facilities, and so it is different from what it was back in the 1970s when I was there, but I was impressed that there are some of the things that I learned in the 1970s that are still appropriate today, but you have also made things different in a number of ways. And one of the ways that really impressed me was the availability of, I guess, an emergency bleeding cart that would be just footsteps away—and you had several of them strategically positioned throughout the labor and delivery units so that the response time could be significantly reduced. Dr. Howell in her written testimony talks about coming into a scene where somebody is exsanguinating an hour after delivery. We had a hearing last year—Mr. Johnson, whose wife had a bleeding complication after cesarean section—can you speak to that and how the urgency with which the situation is responded to has helped you in managing this crisis?

Dr. NELSON. Yes, sir. And Dr. Howell is absolutely right. Time is of the essence in these emergencies. Our labor and delivery suite is over the size of a football field. There are 44 labor and delivery rooms, and in partnership with the Maternal Levels of Care Program for Texas and in alignment with the AIM program, we have four hemorrhage carts on our unit. These are carts that contain specific resources, specific instrumentation, and needs that a nursing team or physician team might need to immediately respond to a hemorrhage event. We debrief after every time we utilize a massive transfusion protocol, meaning every time we activate a massive resource allocation to a patient, we debrief with the team to understand if there are opportunities to learn from the nurses or physicians. We use multidisciplinary simulation where we train in an environment with nursing—nurse midwives, anesthesiologists, and team members. We formalized a checklist that is consistent with the AIM platform. We have the hemorrhage cart that we mentioned. We also perform daily huddles for every scheduled surgery that we have performed, and because our service deals with a fair number of women with what is called placenta accreta spectrum disorder, or morbidity—placentas, we actually have a dedicated team of maternal-fetal medicine faculty and public surgeons for those cases.

Mr. BURGESS. For people who don't know, that can be one of the scariest situations you can encounter. So let me ask you this, and one of your predecessors, Dr. Norman Gant, who was the chairman of OB/GYN when I was a resident back in the 1970s, I forget what he was haranguing us about one day, but he was famous for doing that, and he was giving us the business about how he was worried that his residents were giving care without caring, and he wanted us to be sure to delve into the interpersonal part of the relationship with the patient and being certain we listened to the patient and heard the patient. Some of that strikes me as—when Mr. Johnson was here last year and gave his testimony about the problems his wife had after a cesarean section and when we listened to Ms. Irving talk about her daughter's problems, I mean, there were some

significant things that happened, and I don't want to say there were care lapses, but I am sorry, a diastolic blood pressure of 118 millimeters of mercury, that is not an appointment to clinic tomorrow. I mean, that is something that needs—something needs to be acted upon. So are we empowering people to make the decisions that need to be made when they encountered these points?

And either Dr. Howell or Dr. Nelson, since you are the clinical specialists.

Dr. NELSON. I absolutely agree accountability is critical, and tracking that accountability is one issue. The urgent requested bedside function we actually have in place to track time from the blood pressure to when a response was seen. To add on to the comments from Dr. Howell and some of our other panelists, there is absolutely an issue of racial disparity in our services. At Parkland alone, we have a diversity inclusion officer. We have an instructor-led course once a month on this issue, and every new hire has to go through that because of our environment served. That is a commitment that we have at our organization.

Mr. BURGESS. And I would just stress that, because of the environment served, you are basically what would be described as an inner-city hospital, and you deal primarily with the indigent population of Dallas County, Texas?

Dr. NELSON. Yes, sir.

Mr. BURGESS. Thank you for being here today. Thanks all of you for your testimony. It has all been very enlightening.

I will yield back.

Ms. ESHOO. The gentleman yields back.

I now would—let's see. Where is—a pleasure to recognize the gentlewoman from California, Ms. Matsui, for her 5 minutes of questioning of the witnesses.

Ms. MATSUI. Thank you very much, Chairwoman Eshoo and Ranking Member Burgess, for holding this very important hearing. Like our witnesses here today, I am deeply concerned about the rates of maternal death and severe maternal morbidity in this country that is supposed to be one of the most developed countries in the world. And a special thank you to Ms. Irving for sharing your family's loss. I am so sorry.

Keeping our mothers and babies safe and healthy is vital. As a cosponsor of last year's Preventing Maternal Deaths Act, I am pleased that we are building on this effort to address outstanding racial and ethnic disparities that exacerbate poor maternal health. Extending Medicaid coverage for maternal health services across continuum of care is a critical next step, and strengthening the quality measures and training programs will help protect our mothers and babies when care is delivered. I thank the committee for prioritizing the hearing on this issue. Several of you pointed out in your testimony the uncomfortable truth that a significant portion of severe maternal disease and death is preventable. It is clear how critical Medicaid coverage is to ensure access to care and avoid preventable maternal health complications.

Dr. Howell, you touched upon how quality of care pertains to both clinician practice and system policies. In your holistic view, what is the link between coverage and quality of care?

Dr. HOWELL. So coverage is essential, and I think we heard from Ms. Ranji about how important coverage is, you know, preconception, antenatal, during delivery, and post partum, and the growing awareness that a third of these deaths are happening in the post partum way-out period. We are talking about cardiomyopathies. We are talking about suicides. We are talking about women dying from things that we could do something about, but we have not been giving adequate access to care. So it is instrumental, and it is a key link.

Ms. MATSUI. OK. In Sacramento, we have been looking at, through a Black Child Legacy Campaign since 2015, on this whole area of maternal death, prenatal, post partum activity, and we have come across quite a lot of activities that have really increased our chances here in Sacramento County, and we are really pleased to see that most of the country is sort of looking at how we are doing it too.

In Sacramento, we also have cultural brokers at one of our FQACs, the WellSpace Health, that helped to engage and support pregnant women by integrating medical care, parental education, and community resources for housing and transportation into a prenatal program for families. It has to be all-inclusive, as you know. This comprehensive model has led to rates of premature and low birth rate that are significantly below the national average.

Dr. Harris, it sounds like the AMA is doing some interesting work around social determinants. Can you elaborate on how you envision health plans integrating social and environmental health data—environmental data to better address a mother's unique needs, and how will this lead to healthier babies?

Dr. HARRIS. Absolutely, and thank you. And the structural and social determinants of health are critical as we understand how to address this issue and actually other healthcare crises. We have to look at transportation. Is there access to get to prenatal visits? We have to look at other social supports to make sure that our pregnant moms get to their prenatal visits. For moms who are pregnant and diagnosed with depression, we have to make sure that they have access to psychiatric care and care for therapy, and so addressing housing and education and employment are all critical as we address actually this issue, but really all health issues.

Ms. MATSUI. Sure. Both you and Ms. Ranji made it clear that mental healthcare throughout the pregnancy is paramount to improving the health of mothers and their babies. Would you both expand on the transmaternal mortality with regards to mental health? What is the link between depression and pregnancy and maternal outcomes? You want to take this one, Ms. Ranji?

Ms. RANJI. Thank you. I will let Dr. Harris and my colleagues comment on the clinical aspects, but I will say what we have heard from all the other witnesses is that maternal mental health is a very serious issue. It is a contributor to the maternal mortality and morbidity rates that we have been seeing, and that that is—what we know is that is an issue that does not resolve in perhaps 2 months' time, that that is an ongoing chronic condition that could require various levels of care depending on a woman's individual situation. And so access to care and services is likely needed for an extended period of time.

Ms. MATSUI. OK. I wanted to follow up. Dr. Nelson, what mental healthcare services are offered to women through your clinic's healthcare home model, and why is mental healthcare both before and after birth so vital?

Dr. NELSON. I appreciate you asking that. Mental health is critically important. In Texas, in our maternal mortality reviews from 2012 to 2015, there were 33 suicides, and 85 percent were post partum. In 2013, I published a paper screening 17,000 women with post partum depression. We identified rates consistent with other populations served. Only 22 percent made it to a psychiatrist that were identified to screen positive. From that our service identified an opportunity. We now have mental health counselors placed strategically in all 10 clinics similar to the home you described. Recently, we have actually exercised telehealth and telemedicine with virtual visits. Last year, 1,100 phone calls were made by those mental health counselors to the patients at their home and at their work for those that can't access the clinic directly.

Ms. MATSUI. Oh, that is wonderful. Thank you very much, and I know I have run out of time.

I yield back.

Ms. ESHOO. The gentlewoman yields back.

Pleasure to recognize the ranking member of the full committee, Mr. Walden, for his 5 minutes of questions.

Mr. WALDEN. Thank you, Madam Chairwoman.

And, again, thanks to all our witnesses for your testimony.

Dr. Howell, as I mentioned in my testimony, we have more to do on maternal mortality and morbidity, but we took a good first step, I think, in the last Congress with H.R. 1318, the Preventing Maternal Deaths Act, which, as you know, became law. That bill reauthorized key CDC programs to improve data collection reporting around maternal mortality. That will help support State review committees like the ones set up in my home State of Oregon to study these issues.

Dr. Howell, you are set up in New York, as I understand it, but your organization does national research. How has the work of the State review committees informed Alliance for Innovation on Maternal Health maternal safety and quality improvement initiatives?

Dr. HOWELL. So the maternal mortality reviews around the country are key and essential to the program for AIM because they teach us about each death and where are the preventable moments, what are the things we really need to work on to prevent a death. And then that information is brought to the perinatal collaboratives using some of the tools that AIM has brought together, and that is the way we can implement. We learn from the deaths. We take data and information. And then we act on it. And I think that is why these partnerships with the CDC/AIM are so important, but we need all States to have Maternal Mortality Review Committees. We need them all to review their deaths. We need them to submit them to the CDC so that they can have a central system for monitoring. And so we still need to continue to improve our data acquisition and management.

Mr. WALDEN. But it is fair to say where it does exist, it is working? You are seeing the information flow which allows then a positive response?

Dr. HOWELL. So I think it is mixed in the sense that, yes, there are places that it is really working and you are seeing a lot of movement and you see a lot of positive energy around this. Sometimes the resources are not fully there yet, and so some places are not able to actually do as well as others.

Mr. WALDEN. OK. Good. Dr. Harris, it is important to look at every factor related to maternal mortality and morbidity, but one piece I am worried about is the mental health, as has been discussed here already. And in your testimony, you mentioned that depression in pregnancy is associated with poor maternal outcomes, including maternal death. We have tried to take the lead in this committee on reforming America's mental health laws, but we all know there is more work to be done, especially for mothers with post partum depression. And I must say as a footnote, I was deeply disappointed in my own State. The Governor and the legislature actually cut mental health support funding in my State, and why I cannot imagine, but I, in town halls and other meetings I had this August, I learned the legislature just did that, and it is stunning. You say it occurs in nearly 15 percent of births. That is staggering, especially considering some of the dire outcomes we now know about. Are the State Maternal Mortality Review Committees capturing these outcomes, and are there ways that we can do better?

Dr. HARRIS. Actually, I will have to defer to my colleagues who are obstetricians to maybe talk more about whether or not that data is captured, but I will say, if it is not captured, that is certainly an opportunity gap. We have, as you notice, I think, from the last 30 years or so had a mental health system, no infrastructure, severely underfunded, and we certainly need to catch up, if we can, overall but particularly in this issue. You heard Dr. Howell talk about suicide. I think for many years there was a misperception that depression was normal after the birth of the baby, that it was the baby blues. And so it is critical that we end—there are some emotional swings that do occur, but those are not what we are all talking about with the diagnosis of a major depression, and we have to make sure that the major depression is treated if it is identified within the first visit.

Depression is a chronic disease, and it will need treatment as sometimes for a lifetime, but certainly it is not just a take a pill and your depression will be cured. So this is a huge issue, and we certainly have a long way to go. Funding for mental health overall, and certainly as regards to post partum moms.

I will say one more thing, and there is some great research—I don't have time, but I think we provided this to the committee staff from the Center on the Developing Child at Harvard University. It talks about the importance—of course, we all know the importance of brain development in the first 2 to 3 years, but moms who are depressed are perhaps not interacting with their children in a way, and it may impact even the architecture of their brain development. And, of course, later there are all sorts of negative impacts from that. So many nuances to the importance of mental healthcare for pregnant moms.

Mr. WALDEN. That is a really important point that could easily be overlooked, is that in relationship. Thank you.

Thank you all for your testimony, and we will keep you in our hearts. Thank you.

Ms. ESHOO. The gentleman yields back. Thank you.

I now have the pleasure of recognizing the gentleman from Massachusetts, Mr. Kennedy, for his 5 minutes of questions.

Mr. KENNEDY. Thank you, Madam Chair. Thank you for calling this important hearing. Thank you to all of the witnesses for being here for the work you do every day and for lifting up the voices that need to be heard. It is easy to study the stats to hear some of these stories, to learn about the inequities and implicit bias, to look into the eyes of a spouse, a parent, child, and to talk to a survivor and become, candidly, a bit dejected, to begin to question why we can't in this Nation protect mothers like the rest of the world can, to ask why nearly a thousand American women die from pregnancy and childbirth every year, and why do another 65,000 nearly die or bear those scars for a lifetime?

The tragic truth is that we already know the answer to these questions: a long and pernicious history of racism calcified in our institutions, including our healthcare sector; economic inequality that leaves entire communities relying on unfunded, unprepared hospitals already stretched too thin; and the politically motivated decision by many States to reject Medicaid expansion that leaves thousands of women uninsured less than 2 months after giving birth.

So, to begin with, Ms. Irving, words will never suffice, and there is nothing we can say or do that will make up for the preventable loss of your daughter. Please know that we will carry her story with all of us. In your testimony, you told us about implicit bias training and that it isn't enough, and you are absolutely right. What systematic reforms would you like to see in our healthcare system beyond that mandatory training?

Ms. IRVING. I would really like to see some type of a program/policy standardized—what would you call them—I guess, standardized policies that are tied to either accreditation or funding. That is, I think, the only way you are going to get people to move off the dime. The implicit bias training is great, but you need to have some kind of evaluation on whether or not that is making a difference in the lives of patients, mothers who are coming there. And if it is not, if it is going—if it is causing harm, then they need to be held responsible, whether it is funding cuts, whether it is accreditation that is withheld, or however you want to put it, but there has to be an incentive for folks to do the right thing.

Mr. KENNEDY. Thank you.

Ms. Ranji, nearly half American counties do not have a single practicing OB/GYN, and there are stark divides across access to care within cities like Washington or Boston. Would adding doula services as a covered benefit under Medicaid—as, by the way, a bill introduced by my colleague Ayanna Pressley, the Healthy MOMMIES Act, would do, with increased access to care and reduced rates of preventable maternal deaths or complications?

Ms. RANJI. Thank you for the question. Currently, you raise the issue of doula services. Currently, doula services is covered under in, as far as I know, two States, Oregon as well as Minnesota, under Medicaid. It is a benefit that is not available to many women

covered by Medicaid across the country. It is an area that has been of interest in many States. New York is also piloting a program, and several other States have considered recently adding doula services. Doula services are an important—could be an important source of support for pregnant and post partum women. Doula services expanded beyond just labor and delivery. I am not familiar with the research necessarily tying it to rates of maternal mortality or morbidity or the effect of that, but there is a lot of research, particularly the Listening to Mothers Survey, that has looked at women's perceptions around doula care and have found it very useful. And perhaps some of my clinician colleagues here could speak to working with doulas.

Mr. KENNEDY. Thank you, and just very briefly here, question for each witness, if I can. Can any of you tell me how many post partum women die annually from suicides or accidental overdoses?

Dr. NELSON. I can speak to the Texas maternal mortality review. From 2012 to 2015, overdose was the number one cause, and from 2012 to 2015 in Texas, there were 33 suicides.

Mr. KENNEDY. No national figures, though?

Dr. NELSON. I do not have that, no.

Mr. KENNEDY. Nobody? And to be clear, we do not have any idea how many women die in this country after giving birth from suicides or accidental overdoses because it has never been studied, and it is not reported. So we can't address something we don't know to be a crisis if we don't even know how big a crisis that it is, yet I think we can all acknowledge that it certainly is one, Doctor, given the statistics that you indicate. But we also can't wait for years for these studies to take place before we act, and that is why we need to have perinatal mental health providers in these conversations and why we need to have guaranteed Medicaid coverage for a full year after birth.

Grateful to all of you for being here today. Thank you for your attention to a critical health crisis in our country.

I yield back.

Ms. ESHOO. The gentleman yields back, and thank him for his questions.

I gave birth to two children, in 1969 and 1971, which means they are both older than I am now, but when I complained to my doctor post partum after each birth how depressed I felt, I was told that is just the way it is. So I just place that on the table for everyone to think about, and now I would like to recognize the gentleman from Michigan, Mr. Upton, who served as the chairman of our full committee and with special leadership qualities.

Mr. UPTON. Thank you, Madam Chair. I know that we all appreciate today's hearing. I want to do what we can, particularly on a bipartisan basis, to resolve this.

Every one of our districts is different. All of our States are different. My district has a central city of Kalamazoo, hundred-some thousand people and some rural counties as well. In the past, we have had some counties without hospital to help so people literally had to go out of their county that they reside in if they were going to deliver at a hospital, and, obviously, that happens. Michigan has got pretty rural areas, particularly in the UP, and we had pretty high death rate, maternal, in Kalamazoo back in the 1990s. And

we worked very closely with HHS and got some special money to grant to really target Kalamazoo to see what we could do to alleviate some of those terrible statistics that are there, which go right along with what you have been saying. Women of color, Hispanics, Medicaid births at our hospitals generally are over 50 percent and have been for some time, whether it be either in an urban setting or maybe a rural hospital as well. And I am—Dr. Nelson, I have heard of Parkland Hospital. I don't know how many hospitals are in Dallas, and it seems like you have done a remarkable job trying to really reach out with the satellites and others.

I guess the question is a little bit of a followup to Chairwoman Eshoo to Dr. Harris. So, when you see these statistics that are out of sorts, bad, things that none of us would accept, what efforts—what collaborative efforts—and I guess, Dr. Howell, I ask you to be part of this since you are with Mount Sinai, so thinking about the hospital situation—what efforts are you taking on yourself to say, "What can we work with?" How do we work with the AMA and others to try and duplicate a success that we have seen—I would call it a success—of what we have seen at Parkland? Maybe if the three of you could chat a little bit about that.

I have got one last question for Ms. Ranji at the end as well, but if you could just expand on that a little bit. Because we see these statistics, what are you going to do? What is happening? Where is the leadership to try and get it done?

Dr. HOWELL. So, in New York, we have had a lot of work around this for the last 4 to 5 years when we recognized that we were doing so poorly as a State and the significant racial and ethnic disparities that existed. So, at the State level, we have had a collaborative across all the States trying to implement some of the AIM bundles, three of those bundles in hospitals across the State. And in New York City, the Department of Health had a lot of efforts trying to work on quality improvement, implicit bias training to do so.

At my own institution, we have done a lot of similar things that Dr. Nelson has mentioned in terms of trying to standardize care, building a culture of safety and equity. We have had implicit bias trainings and required it of our obstetricians, gynecologists. We have had all sorts of different things.

But one other point I would just like to quickly raise is, a lot of the research that I have done has really been looking at New York City hospitals, and part of the story here is some hospitals don't have the resources, have the know-how to be able to implement these bundles and do these things. It takes resources. You need protected time because you need a partnership between physicians and nurses, a physician and nurse leader to champion these efforts. And so, while it is in part healthcare professionals in the way that they treat patients, another big part of this story is the place matters, and where you deliver matters. And the resources, the staffing, some of the basic bread and butter of high-quality, efficient hospitals is just not there, and that is something else we need to be thinking about.

Mr. UPTON. So, just to comment. So all of us here support community health centers, all of us, everyone on this committee. It has been a great bipartisan effort for many, many years. And I know

I have been to all of my community health centers. I am going to be meeting with some of my folks from Michigan this afternoon. I am going to follow up with questions based on this hearing. I know that they are very active, and I applaud what they are doing, and we are going to push them hard. And I would just—my remaining time, Dr. Harris, if you can help, particularly in your leadership role now, I think that would be terrific.

My last question, Dr. Ranji, so one of the things that has come up, some States have that 1115 waiver to extend the time beyond 60 days that a woman might be able to be able to get some care under Medicaid. Some States have it, some States don't. A couple of the bills that we are talking about today, in fact, have that coverage, which I think is good. I think it is very good.

What is the impact on the States, because, again, Medicaid is run by the States, so they have to make the application. So what is the reaction of the States going to be if, in fact, we do this thing that I think most of us could support?

Ms. RANJI. Well, Federal legislation would allow uniformity for——

Mr. UPTON. So they wouldn't have to apply for the waiver? They would automatically—if they want do it, they do it.

Ms. RANJI. Right. Allow availability of coverage across the country.

Mr. UPTON. So my time is expired, but let me just say, so how many States you think right away would—how many States have it now, and how many States would say, "Sign us up"?

Ms. RANJI. I can't tell you how many States would say, "Sign us up." I should say Illinois earlier this year did approve that policy and is, in fact, seeking a Federal waiver to secure Federal financing, but again, if it was written into Federal legislation that would allow—that would be uniform across the country.

Mr. UPTON. Thank you, and all my time is expired.

I yield back.

Ms. ESHOO. I thank the gentleman, and he yields back. It is now a pleasure to recognize the author of the MOMMA's Act, Congresswoman Robin Kelly, for her 5 minutes of questioning.

Ms. KELLY. Thank you, Madam Chair. Again, good morning, and thank you all for being here to share your expertise, your insights, your experiences surrounding this critical issue of maternal health.

Ms. Irving, thank you so very much. It can't be easy, but I just want to thank you over and over again.

And Dr. Harris, thanks for all of your support. We could not have written the bill without the expertise and support of the AMA, ACOG. We really appreciate everybody.

In recent years, as you have heard today, the number of American moms dying from pregnancy and childbirth has climbed drastically while globally the rate has declined. New American moms are twice as likely to die today than in 1985, and it is very scary to me. My husband and I have four children between us, three girls, only one has had a baby yet, and it is interesting or scary to think that it was safer for me to have a baby than my next two daughters, who I think are going to give me grandchildren.

After almost 35 years—never know—the situation should be getting better, not worse. As with nearly all health disparities, women

of color, especially Black and Native American moms, as we have heard, bear the burden of this crisis and continue to die at much higher rates. In some places that disparity grows even larger, such as my State of Illinois. One of these mothers was Kira Johnson, the daughter-in-law of TV's Judge Glenda Hatchett. Kira raced cars, flew planes, spoke five languages. She died soon after giving birth to her second son, Langston.

While each death is tragic, the reality of the situation foretells more tragedy. According to ACOG's research, more than half of all maternal deaths are preventable. In Illinois, it said 75 percent of them are. It is clear that we can and must do more to protect mothers' lives. Conditions like hemorrhaging and preeclampsia can and should be prevented. We must understand the need to listen to women and their health concerns. Just last month, I held a field inquiry in Chicago on maternal mortality. Over and over again I heard the same problem: Women are not being listened to, especially women of color.

The hard truth is that no law can legislate away racism. No laws can change the hearts and minds of people who operate on, deliver care to, or just look at people of color from the lens of unconscious bias. But our laws can change how care is delivered within our hospitals by equipping our providers with standardized emergency obstetrical protocols. Our laws can support providers across their training continuum with tools that help them become more reflexive about how their own biases play out in the care they provide to women of color. Our laws can extend care to mothers who are Medicaid beneficiaries throughout the entire post partum period. Our laws can support full collection of consistent data about who dies on the way to motherhood and why.

Knowing this, I introduce the MOMMA Act, which builds on recent successes and data standardization and protocol development to prevent deaths and also establishes a National Maternity Mortality Review Committee, expands Medicaid coverage for new moms to a full year, and seeks to address the racial disparities in maternal mortality.

As chairwoman of the Congressional Black Caucus Health Braintrust and cochair of the Congressional Caucus on Black Women and Girls, a prime importance to me is equitable healthcare access and delivery and the healthcare system's impact on those who, before the ACA, historically experienced barriers to care, whether due to cost, geographic isolation, insurance coverage, and especially due to forms of exclusion, such as race and the residuals of racism.

The time has come for action. We have already lost too many mothers to this crisis, and there are too many kids growing up without mothers because of preventable maternal deaths, and I think that is something this committee needs to look at: How long do we postpone? How long do we keep talking about this as mothers continue to die? It is incumbent upon us to honor their lives with action, action that will prevent another mother from needlessly dying or another family from being torn apart. We see the inequity. We are calling it out, and we are here to eliminate it.

I would also like to enter into the record a statement from Stacey Stewart, president and CEO of March of Dimes, and from Advocate Aurora Health. Thank you, again.

And I yield back.

Ms. ESHOO. The gentlewoman yields back.

It is a pleasure to recognize the gentleman from Illinois, Mr. Shimkus. I didn't like the news that went out with your name attached to it, but we have, let's see, 16 months left to work with you, so take it away. You are recognized for 5 minutes.

Mr. SHIMKUS. Thank you, Madam Chairman. I appreciate that. I like the news. My wife likes the news. So I have been on the ballot since 1988 for every 2 years. So it is time to not be on the ballot. So thank you for those kind words, and we will get the chance to work together more.

Ms. Irving, we grieve with your loss. Thank you for being here.

I am encouraged that this committee is continuing its efforts to understand and address underlying causes of our Nation's maternal mortality challenges. As we have mentioned a couple times today, the President signed H.R. 1318, which is Preventing Maternal Deaths by our colleagues Herrera Beutler and Diana DeGette from the full committee. This legislation enhanced Federal efforts to support State Maternal Mortality Review Committees to improve data collection. I am going to talk about why that is important. I am glad my colleague, Congresswoman Kelly, is here from Illinois because these are most recent stats based upon having started to gather more and better information.

In fact, in October last year, October 2018, Illinois Department of Public Health released its first maternal morbidity and mortality report, which found that, during 2014 and 2016, there were 231 pregnancy-associated deaths, with the pregnancy-associated mortality ratio being highest for women living in rural counties and in the city of Chicago, 60 to 56, respectively. You know, obviously, we mourn every death, and one is too high, but that is just the stats that now we can now dig into and figure out what is going on.

Understanding that this issue affects a broad and diverse population, it is important to make sure any Federal legislation considers the unique needs of States and the localities as opposed to a one-size-fits-all solution. For example, Illinois has a waiver to cover mothers up to 200 percent of the Federal poverty limit. And the ACA exchange coverage begins at 100 percent of the Federal poverty limit, and this is due—Ms. Ranji, are you concerned that additional Federal legislation affecting patients at these income levels could complicate State efforts, or worse, end up punishing States for having made such investments by simply bolstering States and dedicating their resources elsewhere?

Ms. RANJI. Thank you. You know, the Federal legislation or a Federal—as I said before, would add a uniformity to the policy and make it——

Mr. SHIMKUS. Yes, that is exactly why I am asking the question, because if the State of Illinois is better than the Federal legislation, then you are penalizing Illinois for what it is trying to do internally to address these concerns.

Ms. RANJI. Well, States would still retain the option and flexibility that they have now——

Mr. SHIMKUS. We have to make sure that that is available in the legislation. We can't assume that that is going to be the way the legislation comes out. We have to—that is part of the package.

Ms. RANJI. Certainly that would have to be part of the terms if that was——

Mr. SHIMKUS. Right, and that is our concern.

Ms. RANJI. I would just add that, you know, I think what we have talked about today is that coverage is one part of this whole conversation, and that is one area that States have been making efforts in, as has been discussed. You know, States as well as providers and you alluded to differences in provider availability in different regions. Provider States all have a role in this.

Mr. SHIMKUS. And States follow the money, just like anybody else, and so the FMAP does drive decisions by States, and I think we have to understand that and make sure that these kind of contradictory, sometimes competing messages are direct into the way in which we want them to perform.

Let me go to Dr. Howell real quick. In your testimony, you mentioned specific elements of legislation to combat maternal mortality, specifically those elements pertaining to data collection and support for implicit bias training for health professionals.

As a member of the Communications and Technology Subcommittee, we discuss the potential benefits of using Big Data and machine learning, algorithms and such, but also note that the data we often rely upon to inform decisions is inherently biased. You know, that old garbage-in/garbage-out debate that we have all the time. I am curious if you or others on the panel could expand on or offer examples of effective ways to limit the negative impact this bias has on patient care.

Dr. HOWELL. I think you bring up a really good point about data quality, and I want to echo that if you just use vital statistics alone to figure out the maternal deaths, you are going to miss a lot of the mental health and the—you know, the late deaths because it was not a reliable system. The pregnancy check box, which was introduced in 2003, was introduced differently across all the different States, and so, again, you are not dealing with apples-to-apples comparisons.

That is why Maternal Mortality Review Committees are so essential, because we are really collecting data from multiple sources on each death. So we really understand what is the underlying cause, what were the contributing factors. And then now we have the CDC trying to have the MMWR program, which is surveillance, 33 States are part of it, to actually collect this information from the MMRCs so that there is now a national understanding of what is going on. We need to get that all the way up to 50 States, but that is the way to have better quality data around maternal deaths.

Mr. SHIMKUS. Thank you, Chairman.

Ms. ESHOO. I thank the gentleman. Excellent questions and highly instructive answers.

I now would like to recognize Dr. Ruiz from California for his 5 minutes of questioning.

Mr. RUIZ. Thank you. While it is stating the obvious, I would be remiss not to say that is abhorrent that the United States of America is one of only three countries where maternal mortality is on

the rise, along with Afghanistan and Sudan, and it is unacceptable that 60 percent of pregnancy-related deaths are actually preventable. Even worse is the fact that the CDC found that Black women were three to four times more likely to die from a pregnancy-related cause than White women. This is one of the reasons that I have been working on legislation to address health disparities in women's health equity. The Women's Health Equity Act will create a centralized, independent interagency council in the executive branch to facilitate coordination between Federal agencies on women's health issues.

The problem is that you have different agencies working in silos, and they are not communicating being efficient in what they are doing, and they are not opening up the resources as well as they could be with efficiency between all the different governmental agencies addressing this issue. This will enhance coordination and communication between the agencies when addressing women's health issues and health disparities.

The interagency council would focus on collecting and analyzing programs currently in place and give recommendations on how to better coordinate their efforts. The council would also be responsible for monitoring, evaluating, and providing recommendations to address women's health equity and health disparities. It would also streamline programs and activities within Federal agencies that are working towards the same goals.

Dr. Harris, do you agree that the lack of coordination on the Federal level is hampering efforts to truly address health disparities?

Dr. HARRIS. Well, what I would say is you bring up a great point about the importance of getting out of our silos, and interagency coordinating councils are a proven method to do that in other disease and public health crises. And so I would say that any opportunity where folks get out of their silos and work together and agencies coordinate their efforts better is a step in the right direction. I would say, from the AMA's standpoint, we would hope that there would be physician input into any of that agency coordination.

Mr. RUIZ. Well, just to let you know, AMA has been very active in contributing their input into this legislation. Dr. Howell, what are your thoughts on that?

Dr. HOWELL. I agree with what Dr. Harris said, that, you know, us working together, collaborating, and sort of figuring out the next steps, having the voices of many parties, including physicians, in this discussion is really important.

Mr. RUIZ. Excellent. So, you know, I grew up in a farmworker community where residents were largely poor, with English as a second language. And as a kid growing up and later as a doctor who practiced medicine there, I saw firsthand how critical cultural competence is to delivering effective, high-quality care, and it is not just understanding terms from a different culture; it is a cultural sensitivity where you can understand the practice of truly trying to understand a person's background in order to provide the best therapy and increase compliance and increase success of those recommendations. The Giving Voice to Mothers study released this summer surveyed women in the United States in an effort to learn more about mistreatment during birth and found that 17.3 percent of women experience one or more types of mistreatment, including

but not limited to privacy violations, being shouted at or scolded by healthcare providers, or having treatment withheld.

Women of color were more likely to report an experience of mistreatment, with 33 percent of indigenous women, 25 percent of Hispanic women, 22 percent of Black women reporting an experience of, at least, one form of mistreatment. We have heard on our panel today about at least one terrible example of what can happen when a patient doesn't receive the care she is saying that she needs. These experiences further perpetuate mistrust in healthcare systems and influence women's desires to access care.

Dr. Harris, in your experience, how can we imbed improving the experience of care in efforts to improve the quality of care?

Dr. HARRIS. Another important topic, and thanks to the committee members for raising this. There is this whole universe of how we understand and work with others, so you mentioned two terms: cultural competency, cultural sensitivity. I even use the term cultural humility. So we have to appreciate all of these issues in the context. Several of the committee members have mentioned implicit bias, unconscious bias, another part of that universe.

What we know is all of us have unconscious and implicit biases and how should we—but unfortunately there is no gold standard at this point, and one of the things that AMA wants to do is look at not necessarily developing a gold standard, but what might be the components of a great program to get it all.

Mr. RUIZ. I would love to work with you on that. Just in closing, Chairwoman, we can't look at maternal mortality disparities if we don't look at the overall health disparities in our system, because a pregnant woman doesn't exist only when she is pregnant, right? So you have to look at her health and her experience with her health, because that is one of the leading factors of health outcome, is her health prior to being pregnant. And just recently, for example, as an example of how we have these inherent biases, September 6th, JAMA Open Network published an article that showed that, out of over 800,000 women and men under Medicare, they found that Black and Hispanic women were diverted from EMS, from the emergency department designated for them, took a longer trip to send them to the safety net hospital elsewhere——

Ms. ESHOO. Thank you, Doctor, your time has expired.

Mr. RUIZ [continuing]. Which, you know, has dire consequences.

Ms. ESHOO. The gentleman yields back.

I would like to recognize Mr. Guthrie of Kentucky for his 5 minutes of questioning.

Mr. GUTHRIE. Thank you, Madam Chair. I appreciate it very much.

And thanks, Ms. Irving, for telling your story. We had a hearing on this for some bills that we did pass and signed into law. There was a husband in your seat, and he was talking about his wife, and he made the same arguments that you made. He said his wife—I think it was either a business consultant or private equity. His wife I think was a Ph.D., athlete, UCLA, if I remember—delivered at UCLA Hospital—and then had complications and went back. I don't know how many days it was. It was several days, and she was just dismissed with "you are exaggerating" or whatever.

And so what we are saying here—I know we are implicit bias, cultural bias, and we are using those terms, and they are absolutely accurate. But what we are saying is—you said it wasn't lack of education, it wasn't lack of insurance, it wasn't lack of access. I think Dr. Howell said that, if you control for education, insured, African-American women or women of color are treated different than less educated and within coverage for Whites, so what we are saying is, African-American women or women of color are showing up in front of healthcare professionals, and healthcare professionals are treating them differently. We need to do—if it is commission, if it is the agencies, if it is cross-referencing that we can do in Washington, we need to do that to make sure that this is taken care of.

Dr. Harris, you are the only one here representing healthcare profession. What is going on? Is the AMA trying to address this internally? I know we are here in Washington trying to address it, but we know there is a problem. We know it is lack of—there is bias, and what do you think it is, and what is AMA trying to do to address that?

Dr. HARRIS. I think we are trying to find the answers to those questions, and as I mentioned earlier with our new work and, by the way, this is building upon work for many years that the AMA, our commission to end health disparities—again, I just talked to Dr. Aletha Maybank this morning, and we talked about the possibilities. Now we are just getting our center up and running, but this is one of the areas where we want to focus on, we want to understand why, and then what are the solutions that physicians can implement.

Of course, as you know, I am a psychiatrist by training, so I am trained to listen maybe in a different way, but, as I said in my testimony, for whatever reason, many of them are racism, discrimination, implicit/unconscious biases, women are not being heard, particularly African-American women are not being heard. So the fact that we are talking about that is the first step, and I know at the AMA that we are going to move forward and try to find solutions and spread that to the medical community. Of course, our partners at ACOG are here, and we will work closely with them.

Mr. GUTHRIE. I want to correct the record. I think she was a UCLA athlete. She was—Cedars-Sinai was the hospital. So I want to make sure I have that corrected, the previous witness, it was her—so Parkland, though, you have 90 percent Medicaid, and you have this extensive program, and so I think what Dr. Howell said, in New York City, you have hospitals—and I understand that. It is absolutely a fact: You have hospitals that have better outcomes, and hospitals, others. And you are saying it is more women of color go to their—they are kind of divided up in where they go to get their service. But what I don't understand—getting back to the healthcare professionals, why aren't they just showing up—are they showing up at your hospital, Dr. Nelson, saying, "What are you doing? How can we replicate it and move forward?"

It looks like we are here doing a mandate from Congress, and if Congress needs to mandate it, we need to mandate it. But it seems like within the healthcare profession, they would be flooding to what you are doing, or in New York, some of the hospitals go into

the hospitals having better outcomes, and just, what are you doing different? Because when we did the bill last year, we found that, in high-risk pregnancy, some hospitals didn't even have high-risk kits available when they were doing high-risk deliveries, just the basic stuff. And it is hard for us to fix—when they are not even doing the basic stuff—from Washington.

So, Dr. Nelson or Dr. Howell, whoever wants to talk about that, it is disturbing that the healthcare profession is not addressing this better than they are? Not saying you are not.

Dr. NELSON. Well, I think, to speak first, you are absolutely correct and that the first issue that Dr. Harris mentioned is we have to recognize we have a problem, and collectively we have to agree that we have a problem and this includes issues within high-resource settings and low-resource settings. And one of the steps forward that I am proud of is the regionalization of care that we have provided in Texas, and that is not to say we are closing hospitals in rural communities. We support that. It is really to identify women with prenatal care that have a high-risk condition, identify their needs, and get them to a facility that has resources——

Mr. GUTHRIE. I understand what you are doing, but are other hospitals flocking to you from other cities and trying to understand what you are doing and replicate it?

Dr. NELSON. That model is one of the opportunities, and it dovetails AIM, and it dovetails the California initiative. These are standardized practices that we can all collectively agree to in the medical community to say——

Mr. GUTHRIE. Because you being 90 percent Medicaid, you are not at the top of the chain in terms of financing?

Dr. NELSON. But the principles——

Mr. GUTHRIE. It can be replicated.

Dr. NELSON. The principles of care are the same, and that is emergent response to emergent conditions, and time is key.

Mr. GUTHRIE. Right. Thank you.

My time has expired, and I yield back.

Ms. ESHOO. I thank the gentleman, and he yields back.

Pleasure to recognize the gentleman from North Carolina, Mr. Butterfield, for his 5 minutes of questioning.

Mr. BUTTERFIELD. Thank you very much, Madam Chair.

Thank you to all of the witnesses for your testimony today.

Let me begin with you, Ms. Ranji. Thank you for coming today, and thank you for your words.

As you pointed out in your testimony, research shows that health coverage before, during, and after pregnancy is important to support healthy pregnancies and positive outcomes. Medicaid, that favorite word that we all talk about, Medicaid, I wish it was available in every State in the Union with respect to its expansion, but Medicaid is a vital program for many families in my district and all of our districts. I am glad the committee is looking at bills that would extend Medicaid eligibility for pregnant women to 1 year post partum. A maternal-fetal medicine specialist at Duke University in my district shared with my staff recently that extending Medicaid coverage to 1 year post partum would be life-altering and potentially lifesaving for her patients, many of whom have not had regular care until finding out that they were pregnant. Extending

Medicaid coverage for new moms is a vital step to ensure these women can continue to be cornerstones of our families.

Ms. Ranji, simply put, healthy moms lead to healthy babies. Is that an overstatement?

Ms. RANJI. There are certainly a lot of research that connects the health of moms with the health of their children and as well as coverage that access to coverage for moms also connects to access to coverage for children.

Mr. BUTTERFIELD. Could you describe for me the long-term positive benefits that 1-year post partum Medicaid coverage would have on moms and their children?

Ms. RANJI. Well, like I said, in several States now, women do lose coverage after 2 months, and so extending to 1 year would provide access—seamless access so that women could continue to see the same providers and follow up on many of the issues that—clinical issues that my colleagues have talked about today. Cardiac-related health, maternal mental health, and again, coverage provides access to a provider and being able to continue and follow up on all of those issues that, again, that we know don't resolve within 2 months usually.

Mr. BUTTERFIELD. Thank you. Many of the witnesses, Madam Chair, today have commented on the disgraceful and disturbing fact that African-American women are three to four times more likely to die from a pregnancy-related cause than their counterparts. Black women are also more likely to have complicating conditions, like uterine fibroids and hypertension, among others, which can cause severe maternal morbidity and have potentially life-threatening and lifelong consequences.

There have been countless stories of women dying or becoming ill because their symptoms were ignored or treatments were not offered. What should we do—and let's try you, Dr. Howell, on this if we can. I just looked at your bio. It looks like you are well suited to handle this. What should we do to educate providers about conditions like these that disproportionately impact women of color and how to identify and treat them?

Dr. HOWELL. So, again, a very important point about risk status for women when they enter our healthcare system, antenatally as well as on labor and delivery. So risk stratification is an important part, and it is something that we use also in our AIM bundles to understand who is most at risk and to make sure those people are getting what they need and when they need it. So I think in addition to just pure clinical care and thinking about the best way to optimize care for individual patients, we also need to think about some of these other issues around communication strategies, decisionmaking, shared decisionmaking, listening to patients to better understand their story, and recognizing and teaching healthcare providers that there is a bias not to listen to women in general, which we have heard in our own focus groups across race and ethnicity, but it is more pronounced for women of color. So I think those are some of the steps that we need to take.

Mr. BUTTERFIELD. Thank you. Thank you very much.

Madam Chair, since Dr. Ruiz went over 1 minute, I will go under 1 minute, and maybe we can cancel each other out. Thank you.

I yield back.

Ms. ESHOO. I always knew you were a good man, always.

Mr. BUTTERFIELD. Yes. He is my friend.

Ms. ESHOO. Yes. Well, you are both my friends.

The gentleman yields back, and now it is a pleasure to recognize the gentleman from Virginia, Mr. Griffith, for his 5 minutes of questioning.

Mr. GRIFFITH. Thank you very much, Madam Chair.

And clearly somebody said it earlier, we have to identify that we have a problem, and clearly that has been identified, and we heard the testimony last year of Mr. Johnson. We heard your testimony today, Ms. Irving, and those losses where the mothers were just—they just weren't paid attention to. And that clearly is a concern.

But I was struck, Dr. Howell, by one paragraph in your testimony, and I am going to repeat that paragraph because I think it is helpful, and then I am going to ask you a question.

Quoting your testimony: "Research by our team and others has shown that, for a variety of reasons, Black women tend to deliver in a specific set of hospitals, and those hospitals have worse outcomes for both Black and White moms regardless of patient risk factors. This is true in the United States overall where three quarters of all Black women deliver in a specific set of hospitals while less than one-fifth of White women deliver in those same hospitals. Both Black and White women have worse outcomes in those hospitals. In New York City, a woman's risk of having a life-threatening complication in one hospital can be six or seven times higher than in another hospital. Black and Latino mothers are more likely to deliver in hospitals with worse outcomes. In fact, differences in delivery hospital explain nearly one-half of the Black/White disparity and one-third of the Latina/White disparity in severe maternal morbidity."

So here is my question, with their choosing a specific set of hospitals, how do we fix those hospitals, and should we have some way of getting the information out if we can't fix those hospitals that these hospitals are far more dangerous? Doesn't solve all the problems, but your testimony indicates that one-half of the disparity is because of specific hospitals. Nothing else that we are doing here at the Federal level or the State level, but the specific hospitals they are choosing? How do we fix them?

Dr. HOWELL. So I think what is interesting about the work we have done in New York City is that it is not the traditional hospital characteristics, so it is not percent Medicaid. The median percent Medicaid in New York City hospitals is like 80 percent, so we are talking about a highly—60 percent of our deliveries are covered by Medicaid. So it is not volume. It is much more—we don't really understand why there is such a variation, other than having to go in and talk to hospitals, and that is what our research team is doing. So we are going into hospitals who have low rates and hospitals that have high rates to try to understand what the differences are. And what we are finding is that it is things like staffing. It is things like culture—the culture of the institution and the way that they treat adverse events. It is things like communication and the emphasis. It is quality and safety on labor and deliveries and the use of evidence-based practices, but it is also whether there is any focus on equity and diversity and how they think about it.

So more work needs to be done to understand these variations, especially in large urban centers where you have high volume, but that is one key, important piece because, in certain hospitals, regardless of what you look like, your risk is higher to have one of these severe complications, and that is an important part of the story we are talking about today.

Mr. GRIFFITH. And so, while we look at these bills—and I think this was the same point that Mr. Guthrie was making just a minute or two ago, and he and I hadn't talked about what we were going to discuss, but he started hitting some of that same testimony.

While we are working on this legislation, that is an area we need to focus on. And right now, while there is some studies in these bills, I don't think the bills are really focused on that area, and maybe we need to give some more money to the NIH to focus in on that so that we can figure out what the problem is. Maybe they need to be doing what Dr. Nelson is doing in Texas, but maybe that doesn't work in New York City because what works in Texas might not work in New York City, but we still need to figure out, if that is half of the problem, then it ought to be addressed in some of our bills as more than just a casual line in a study.

Would you not agree, Dr. Howell?

Dr. HOWELL. I think that it is one important part of something that needs to be addressed. So, yes, I do agree that it is one more element that we need to look at and a very important one in New York City.

Mr. GRIFFITH. And, Dr. Nelson, you would be more than happy to talk with anybody who wants to figure what you are doing right. Is that correct?

Dr. NELSON. Yes, sir.

Mr. GRIFFITH. And you would be willing to work with these hospitals that in the testimony are just listed as—and I am not asking for names today—a specific set.

Dr. Howell, real quick. I just have a few seconds left. Should we identify for the public those specific set of hospitals where your risk is higher?

Dr. HOWELL. So I think that, Dr. Nelson, I think we both agree that measurement is a key. Quality measures that are important and that women can use to help choose hospitals I think is an important measure, but we have to be very careful about the development of appropriate risk-adjusted quality measures so we do not penalize the hospitals that take care of the sickest and the hardest cases, and I think that is a really important part of doing really well-done, quality measure development in maternal health that focuses on both the patients—patient-centered, thinking about experience—as well as on disparities.

Mr. GRIFFITH. Thank you.

I am out of time. If the chairlady would like to give you time, Dr. Nelson, she can. But I am out.

I have to yield back.

Ms. ESHOO. Well, the gentleman yields back, but I think that his question to you is really very, very important. All of the collection of the data is essential so that you have something that is foundational, but we already know where women of color deliver

and die. So there has to be—I think there needs to be a red-light-and-siren team that gets into these hospitals, and I also think that we should consider the accreditation of that hospital based on the morbidity rates.

So I don't know if that is what the—where the gentleman was going, but it certainly is my sentiment.

Mr. BURGESS. Would Dr. Nelson respond to that?

Ms. ESHOO. Certainly.

Dr. NELSON. So one of the comments of sharing, in all seriousness, sharing our experiences and what we do as practices is actually part of the outreach and one of the things that we actually stress as part of the regionalization of care. We actually have an outreach team going to lower-level facilities to talk about emergent response to hypertension and labor management. So that actually is one of the existing programs we currently are using right now.

Ms. ESHOO. I mean, I don't know if El Camino Hospital in Mountain View, California, knows what you are doing. And I am not saying that they have a problem. It is marvelous what you are doing, but this needs to be under a national umbrella, and I don't think anyone is arguing with that.

It is a pleasure to recognize the gentlewoman from California, Ms. Barragán, for her 5 minutes of questioning.

Ms. BARRAGÁN. Thank you, Madam Chairwoman.

And thank you all for being here today, for sharing your stories. The statistics are quite tragic, completely unacceptable in a country like ours.

I first learned about the issue of racial health disparities when I was in the White House. I was an intern, and the New England Journal of Medicine came out with a study. It showed that they had sent an African-American woman, a White woman, a Latina woman to similar doctors, same doctors, complaining of the same symptoms, and they were all treated differently, and that is when I first learned of it.

And I think one of the points made by my colleague Dr. Ruiz is critically important. It is certainly overall health and making sure we are all getting access to equal care, but that we are being listened to.

And, Ms. Irving, I want to thank you for coming and sharing your story of your daughter, and the testimony that you provided is something that we all needed to hear. And that is why I am glad we are having this hearing today to kind of look at these bills and see what can be done.

It sounds to me there is not one fix. It sounds like there is going to be a series of things that need to be done to be fixed, to fix this issue and to make this wrong right.

And so I thank you all for coming.

Dr. Howell, two of the bills that we are being presented with and are looking at are H.R. 1898, the MOMMA's bill that my colleague Ms. Kelly has, and H.R. 2902, which is a bill that my colleague Alma Adams has. Have you had a chance to look at those bills? I would like to know if you believe those bills might help eliminate some of the implicit bias among the medical professionals.

Dr. HOWELL. So I did get a chance to look at those bills. I don't have my notes. Could you just repeat the names of the two you wanted me to talk about real quickly?

Ms. BARRAGÁN. Sure. The MOMMA's Act.

Dr. HOWELL. Yes.

Ms. BARRAGÁN. And the other one is the Maternal Care Access and Reducing Emergencies Act.

Dr. HOWELL. Got it. So, yes, I did have chance to look at all of the bills, which, again, I think there are elements that are key for this issue.

The MOMMA'S Act, authorizing the AIM program, which I told you is the key to having standardized care practices implemented in hospitals and health systems across the United States currently reaching 27 States, so potential to reach more than 50 percent of all U.S. births, very important. We need to authorize that.

Second, Perinatal Quality Collaboratives, Maternal and Infant Health Quality Collaboratives are so important as a tool to improve quality of care. And these are partnerships with hospitals and health systems and Department of Health.

As you have heard from my colleague, very important to extend Medicaid for 12 months post partum. You know, there are so many cases of women who have gestational diabetes. They go on to have a risk. They are seven times more likely to have type 2 diabetes, but if we don't capture them in that post partum period, they could go on and be much sicker the next time they get pregnant, as well as cardiovascular complications that are so important.

Then, finally, the Regional Centers of Excellence to address implicit bias and culturally competent care, which we have had a discussion about, which I think is a really important piece, again, I would expand it to think about patient-centered communication, shared communication. It is not just bias. That is the problem. But we are not doing a good enough listening to our patients, communicating with our patients, and understanding their perspectives. So having centers of excellence that really focus more broadly with a focus on explicit and implicit bias, I think, are important.

And I think that the Maternal CARE Act has very similar themes to it. The Maternal CARE Act, though, does talk a fair amount about care coordination and its importance to target social determinants of health, which I think is an important piece. It calls for a medical home demonstration project, which I think is of interest.

My one thought I would just share is that CMMI Innovation project looked at group prenatal care versus birth centers, which is predominantly midwifery care, versus maternity home care for prenatal services to see if we could lower adverse birth outcomes, lower costs, and improve satisfaction. And the other two models performed better than the maternity home model.

So that is evidence that I think we have to include in these discussions. There is no question that care coordination in general seems to really do a good job targeting disparities, and it may need to be a piece, but we need more evidence to make sure, because this early evidence is not telling us it may be the best step forward.

Ms. BARRAGÁN. Thank you, Dr. Howell.

I also want to mention I think another component is making sure that we get more people of color into the medical profession that are there to listen, that are there to understand. I am proud to have Charles Drew University Medical School in my district, which is a historically Black graduate institute that is a district that is 88 percent Latino/African American, that is bringing more and more people into the fold, into these professions and certainly, if I had more time, would ask about your opinion, but I wanted to certainly say that I think this is another angle we can certainly improve in as well.

Thank you very much, and I yield back.

Ms. ESHOO. The gentlewoman yields back.

It is a pleasure to recognize the gentleman from Florida, Mr. Bilirakis, for his 5 minutes of questions.

Mr. BILIRAKIS. Thank you, Madam Chair. I appreciate it so much.

And thank you to the witnesses here who are testifying. Very informative.

Dr. Howell, we can't solve what we don't understand. That is why, last Congress, this committee passed bipartisan legislation, the Preventing Maternal Deaths Act, which provides funding through the CDC for States and other entities to develop Maternal Mortality Review Committees so we can start collectively understanding and reducing our rate of maternal mortality.

CDC recently announced it is funding the first round. It is funding the first round of grants to support 25 States, their efforts to combat maternal mortality through the creation of Maternal Mortality Review Committees. As States prepare their implementation efforts, what should this committee be paying the most attention to?

Dr. HOWELL. Well, I think it is wonderful that the CDC is now sponsoring 25 perinatal quality collaboratives. I think the data is at a key point.

I also want to say one thing, though. You are absolutely right. What we don't understand, we can't really address, but there are models of success. We have heard a lot about Parkland today. If we look at California Collaborative and what they have done, by using Maternal Mortality Review Committees, gathering the information around deaths, then using that information to drive quality improvement. And they have done a number of the bundles, the same bundles we are talking about for AIM. They started—hemorrhage, hypertension, venous thromboembolic disease—and they have actually lowered deaths in hospitals that adopted these bundles by, like, 21 percent for the hemorrhage-related deaths and their mortality rate, while the rest of the United States has been going up, theirs has been going down. So we have evidence that, when we tie data to quality and improvement, we can really make a difference.

The important lesson about California, though, is—an additionally important lesson—is that their disparities, however, did not decrease. So they lowered mortality for White women and they lowered it for Black women, but that gap is still there. And now they are trying to target a lot of the things that the rest of us are trying to target around health equity, combining quality improvement,

what the data tells us with cultural humility, and sort of trying to understand communities, getting them involved to help tackle this problem, which is something that the AIM bundle also tries to do. The ACOG partners with community organizations to get their input about how best we implement these bundles not only in hospitals and health systems, but we get communities on board as well.

Mr. BILIRAKIS. Thank you.

Are there concerns within the research community regarding the integrity of the data being collected in States, and if so, what are those concerns, and how might they be addressed? Are there any concerns with regard to the integrity of the data?

Dr. HOWELL. Well, there are certainly concerns with the use of what I had mentioned about if you only base maternal mortality rates on vital statistics data only that you are only getting a slice of the picture, and it is not a great way of monitoring our trends across the Nation. The CDC now uses vital stats. It combines it with State discharge abstract data, which gives a better estimate, but still the best estimates are the data from the Maternal Mortality Review Committees that actually get multiple sources of data to figure out how this death occurred, what were the contributing causes, and then feeding that back up to the CDC through their MMWR program is probably the best way for us to get data on this that we can use for improvement.

Mr. BILIRAKIS. Very good.

Thank you. Last week, the CDC released a report titled "Racial and Ethnic Disparity in Pregnancy-Related Deaths." In the report, CDC suggested that steps still need to be taken in order to better integrate care delivery between hospital and pre- and postcare services for mothers and their newborns, as well as better management of high-risk patients.

How might this committee consider addressing these specific challenges highlighted by the report? And can you highlight any States or entities that can be looked at as models—again, best practices in these areas?

Dr. NELSON. So I think that I would echo. Much of what Dr. Howell just mentioned, I think, is reflective in that effort. California has been a model for a lot of the programs, but the same principles are true within the AIM domain. Parkland Hospital publishes *Williams Obstetrics* as a textbook. It is the most popular textbook worldwide. We have 17 authors on our faculty, including myself, and these principles are the same. The important part of this is disseminating that level of scholarship and information to the community centers, to the communities at large, and the providers in those communities.

Mr. BILIRAKIS. Well, thank you very much.

And I yield back, Madam Chair. Thank you.

Ms. ESHOO. The gentleman yields back.

It is a pleasure to recognize the gentlewoman from Florida, Congresswoman Castor, for her 5 minutes of questioning.

Ms. CASTOR. Well, thank you.

And, Chairwoman Eshoo, I want to thank you very much for organizing this hearing here today on the maternal health crisis in America.

It is good to see so much engagement by the committee this morning, right, our first committee meeting back after the district work period.

First off, I want to say I am really proud to be a cosponsor of Representative Kelly's MOMMA's Act. And I am so glad that she joined the committee this year. She is a champion on this issue, and her voice is vital to this discussion, and it is needed. It is just horrendous what is happening with disparities when it comes to maternal health in the United States of America.

And I want to thank the witnesses for being here and for providing your expertise. Already I have seen Members making long lists of how we can improve the bills that are before us today.

Ms. Irving, I thank you very much for sharing the story of your daughter. You are very brave to do so, and I know she would be very proud to know that you are carrying on her work.

I am also grateful to the advocates across America who engage every single day, whether it is the March of Dimes or it is the American College of Obstetricians and Gynecologists or Every Mother Counts, the folks in the trenches, making sure that—whether they might be Healthy Start—making sure that women and families have every opportunity to have healthy children.

In the Tampa Bay area, I am very fortunate. We have a terrific Healthy Start REACHUP initiative led by Lo Berry. They are one of the national leaders. But what they tell me is, while they have years of experience and they are making progress, they are not able to reach everyone. We are still not able, after so many years, to ensure that women of childbearing age get the services, get the support that they need. I mean, in America, it is so disjointed, Medicaid and maybe private health insurance and maybe you are uninsured and you are trying to find a community health center, but that community health center doesn't provide care. It is still not enough.

And I was really taken by the comments of Dr. Ruiz and Representative Butterfield, who highlighted this really is a continuum of care that is in crisis, and add on top of it the disparities, the racism that continues, the social stigma probably in many different groups. We have got to do so much more. So I will look forward to as we get into the markups on these bills how we can really tackle this continuum of care.

I am also fortunate, back in Tampa, we are home to the University of South Florida. Dr. Judette Louis is the chair of the College of Medicine's Obstetrics and Gynecology Department. She shared, again, the sobering statistics. In Florida, Black women are nearly three times more likely to die from pregnancy-related causes than White women. She said that, yes, the Maternal Mortality Review Committees and the perinatal quality collaboratives are helping, but so much needs to be done.

I want to start my questions with Ms. Irving. You have listened. These folks are very smart. Members of Congress have had some insightful questions. What would your daughter want to highlight after listening to everyone here today? What would your daughter say, "Boy, that is absolutely right"? What would she have wanted to highlight to this?

Ms. IRVING. I wish I knew. My daughter was a brilliant person. I think the most, what she might say or start off saying is, this is not a new phenomenon. This has been going on for decades. Why can't we get it right? There are things that can be done but are not being done. I think she would probably say that behind every one of these statistics, there is a woman who is loved, who is missed. And look at the domino effect. Look at the families. Look at the children that are suffering because we can't get it right.

She would want us to look at making sure that there are the standard care policies and procedures in place, and there is some accountability behind it so that we can make sure that folks are being listened to.

I listened to all of your talk and things about people come in, and it is the hospitals, and there are certain hospitals where you can't go or where you won't get the same amount of care. That wasn't the case for Shalon. The case was that she wasn't heard. She came in. She presented with the symptoms. It wasn't that she was making it up. She came in with swollen legs. She wasn't voiding. She was gaining weight. She gained 7 pounds in one week, and she was there three times that week. Her blood pressure was off the chart. She was not only not listened to, she wasn't—her symptoms were not addressed. She was there. She was in a very, very good hospital. She had great doctors in that hospital. She had gold-plated insurance. She was not an ignorant woman. She knew what was wrong, and she kept saying it: "I don't feel well. This is not—this is not me. There is something going on here."

But she was dismissed with the "Oh, it is fine. You just had a baby. Give it time. Don't worry about it."

I think my daughter was just so tired at that point. She didn't stand up and say, "Look, I am going to the emergency room, or I am going to call another doctor, or I am going to another hospital or whatever until somebody listens to me."

With a newborn baby with colic, with respiratory distress, she just was tired. And she needed someone to advocate for her. She needed someone to realize that they had to take care of her at that time, and so I think she would just be off the chart right now because that is not happening.

Ms. CASTOR. Well, let that be a lesson for all of us as we move these bills. Thank you.

Ms. ESHOO. The gentlewoman yields back.

I now would like to recognize the gentleman from Missouri, Mr. Long, for his 5 minutes of questioning.

Mr. LONG. Thank you, Madam Chairwoman.

In this final round of *Jeopardy!* today, we only have one category left, and that is "Who said it?" So in the category of "Who said it?" for $1,000:

"After delivering another perfect baby, I was sitting next to Kira by her bedside in the recovery room. That is when I first noticed blood in her catheter. I notified staff immediately. A series of tests were ordered, along with a CT scan to be performed stat. I understood 'stat' to mean the CT scan would be performed immediately.

"Hours passed, and Kira's systems escalated throughout the rest of the afternoon into the evening. We were told by the medical staff at Cedars-Sinai Kira was not a priority, and we waited for the CT

scan to be done. We waited for the hospital to act so she could have her recovery. Kira kept telling me, 'Charles, I am so cold. Charles, I don't feel right.' She repeated these same words to me for several hours. After more than 10 hours of waiting and watching my wife's condition deteriorate, after 10 hours of watching Kira suffer in excruciating pain needlessly and begging and pleading them to help her, the medical staff at Cedars-Sinai finally took action.

"As they prepared Kira for surgery, I was holding her hand as we walked down the hall to the operating room. Kira looked at me and said, 'Baby, I am scared.' I told her without doubt everything would be fine. The doctor told me I would see her in 15 minutes. Kira was wheeled into surgery, and it was discovered that she had massive internal bleeding caused by a horrible medical negligence that occurred during her routine c-section. She had approximately three liters of blood in her abdomen. Kira died at 12:22 a.m., April 17th, 2016. Langston was 11 years old.

"As someone who experienced firsthand what it was like to have your spouse die in front of you, I do not have the words to describe the loss my family has suffered. My boys no longer have their mother. Kira was the most amazing role model and mother any boy could ever wish to have. I no longer have the love of my life, my best friend."

Of course, those were the words of Charles Johnson IV, who I believe was of means. Kira was of means. It wasn't someone that didn't have good prenatal care. It wasn't someone that had—didn't have a—it was a preplanned c-section.

We are talking here today, and I hear a lot of people talking about access to prenatal care, which of course is vitally important, but cases like this, cases like Ms. Irving's, all I want to do is come down there and hug your neck. I can tell you that.

But I am the only Missouri Member that is on Energy and Commerce. So, consequently, I am the only Missouri Member that is on the healthcare subcommittee. So I feel an obligation to travel the State for healthcare issues. I visited just during this break a week ago—it may have been a week ago today, I am not sure of the timing—but Kansas City Children's Mercy hospital. Went through the neonatal. Went—you know, and I do that quite often. I go to St. Louis Children's up there.

Our oldest daughter is a pediatrician, and I know when she does her rounds at the hospital that, you know, all that she wants to do and you think all any doctor would want to do is love these babies and make sure they get a good start and love the mothers, and so whatever we can do on this committee.

I mentioned earlier in my little outburst when we had the outburst in the hall—which I apologize to you all that that went on for any length of time during your testimony—I am a member of the Black Maternal Health Caucus. And I deeply care about this issue. The timing didn't work out to bring up H.R. 4215 today, the Excellence in Maternal Health Act. Nobody's fault, just the timing didn't work out.

But I am an original cosponsor of that, and I just want to thank you all for being here today and your heartfelt testimony. I have said a lot of words today, but there is no words to say, to express what an unbelievable issue this is and the things that happen, but

if your testimony here today, Charles' testimony back in September of 2018, I believe it was, we have had a lot of important, lot of big hearings, a lot of memorable hearings in Energy and Commerce. Mark Zuckerberg from Facebook is an example of—Dorsey, Jack Dorsey of Twitter, you know, the rooms were packed, a lot, you know, but no hearing ever moved me like Charles Johnson's testimony that day, and your testimony here today is right along there with it.

So God bless you and thank you for being here, and thank all of you for being here, and if there is anything that me, my staff, the committee can do, please keep us apprised, any suggestions, ideas. We will be honored and glad to work with you.

I yield back.

Ms. ESHOO. The gentleman yields back.

It is now a pleasure to recognize the gentlewoman from Delaware, Ms. Blunt Rochester, for her 5 minutes of questions.

Ms. BLUNT ROCHESTER. Thank you, Madam Chairwoman.

And thank you so much to the witnesses for your testimony. I especially want to acknowledge Representative Kelly for her leadership in this important issue.

I held a townhall meeting in the past month over the recess, and a midwife stood up and shared her perspective on the role that she plays. And one of the things that she focused on was the social determinants of health, particularly in maternal mortality. And she said that she was caring for a soon-to-be mother, many of which are told go out and get some exercise, but they don't feel safe walking around their neighborhoods, or who are being told to eat nutritious diets but don't live within blocks of a grocery store selling fresh fruits and vegetables.

And as we transition our health system, you know, I think it is critical that we think about the social determinants of health and all those things that surround it.

And so my first question is to Dr. Harris. Can you talk about the social determinants of health and how we can address this challenge of maternal mortality by dealing with the social determinants of health?

Dr. HARRIS. Thank you.

And I can. I can say that the AMA is very committed to addressing these issues because, if you look at that circle of care and you look at the fact that maybe health outcomes are impacted, and we know they are impacted some by physicians and hospitals, but we see a huge impact related to the social determinants of health: transportation, housing, whether or not you have a job. You mentioned whether or not you live in a food desert, and I know now and my colleagues can talk about whether or not you live in a maternity care desert.

So those are all pieces that we plan to focus on as we build out the work of our Center for Health Equity, but I will say we have current policies that raise the importance of social determinants of health. So, wherever we go, I mention that and, in my own work, that it is not enough for us to say to exercise. Physicians should say that, but we have to make sure there are equitable opportunities for exercise, to access healthy, nutritious foods. So that work will be included in the work of our Center for Health Equity.

Ms. BLUNT ROCHESTER. Thank you.

This questions is for the panel, and it is one that has plagued me for a long time.

And, Ms. Irving, first of all, thank you so much for sharing your testimony and for sharing your daughter's story. And it is at the heart of my question. I don't understand why. I can talk about the social determinants of health and understand that there is a disconnect sometimes between access to healthcare or the kind of healthcare, but your daughter, you know, smart, understood health.

I watched a Jon Stewart piece last night about maternal mortality, which is interesting, and he said that—they showed a clip of a father, an African-American man, who said his wife died because he was afraid to be perceived as the angry Black man if he spoke up for her.

So I am curious. Can you explain to me for those African-American women that are experiencing this and it is not an issue of access to healthcare, education, a doctor, can the panel, can someone help me understand? What is it? What is going on?

Ms. IRVING. I will start off and then turn it over, but I had the same issue, and I suffer now from regret that I wasn't that angry Black woman, and I think my daughter kept me from doing that because she would say, "Mom, just calm down. Just let them handle it. It is going to be OK."

But it wasn't OK, and I wish now that I had stood up and said, "Look, you are going to do something right now."

But I think it might have had the negative effect, because then I would have pushed them away, and it might—well, it would have—I can't see how it would have turned out any worse than it did, but that is what a lot of Black women or Black men face when you are coming in because you are looked at as a threat. Then, if you start getting loud, the next thing you know, you could be put out of the hospital because you are not communicating in a way that is acceptable.

Ms. BLUNT ROCHESTER. Doctor.

Dr. HARRIS. So that is an important part. I would say that is the other end of folks examining their own implicit biases. I have not had a child, but I have often been the only African-American woman in a room, and I think people of color, particularly African-American women, because there are issues around discrimination based on gender and race, end up self-editing sometimes and being extra careful so that we are not the angry Black woman or the angry Black man.

And I think as we have this conversation, we have to talk about that more. It only comes, I think, with some practice and some experience and, frankly, some privilege that you feel more comfortable raising issues. And that should not be the case.

Ms. BLUNT ROCHESTER. You are right.

Dr. HARRIS. And so I will say that was part of our discussion, will be part of our discussion at the AMA. But it really needs to be part of this society's discussion to look at, I think, the biases and the racism and discrimination in all contexts.

Ms. BLUNT ROCHESTER. I know I am out of time, and it is just something that has plagued me. I know people like Serena Wil-

liams, Beyoncé have gone through this, and it is not even—it is beyond privilege.

Thank so you much for having this hearing, and I will send questions in writing. Thank you.

Ms. ESHOO. The gentlewoman yields back, and you ask a very heavy question, but a necessary one.

It is a pleasure to recognize the gentlewoman from Indiana, Ms. Brooks, for her 5 minutes of questioning.

Mrs. BROOKS. Thank you so much, Madam Chairwoman.

And I also want to thank the ranking member because this is something that we have been focused on for a couple of Congresses, and we must do more. We rarely in this body, I think, have an opportunity like we have now to educate those medical providers of the future.

And one thing that you mentioned, Ms. Irving—and I want to thank you so much for sharing your horrible, very, very sad story, but the power of your testimony, the power of your written testimony, which I read this morning and was quite moved this morning, even before you spoke—you mentioned something that I don't think that we have talked about enough, although Dr. Burgess mentioned it. In his medical training, he had a doctor who talked about care, about caring, and you mentioned med schools.

And I think the hearing we had last Congress and the hearing we are having this Congress from all of the incredible professionals here that are studying it, that are working on it, that are trying to improve—Indiana has the third-highest rate of maternal mortality. Now, yes, we just instituted that review committee. Luckily our new, or fairly new, head of State Department of Health is an OB/GYN, and this is a top priority, Dr. Kristina Box, top priority now for our State, but we have got to start earlier. The review committees are after the fact. We have got to study the data. We have to collect the data to understand the problem.

But what would you all like to see our med schools do, our nursing programs do, our—we haven't really talked. That is one aspect we haven't really talked about.

Maybe starting with you, Ms. Irving.

Ms. IRVING. I think the training that we have talked about before as far as the implicit bias training, et cetera, is good to start early. They must recognize that every patient should be treated as an individual. Even though we have standards of care, you look at the patient as a whole. And I haven't been to medical school. So I don't know what the training is, but you have to have that "it could be my mother, it could be my wife, it could be my daughter" and look at each patient through those lenses and work on it from that point.

Mrs. BROOKS. Thank you.

Dr. Harris, how do we take what Ms. Irving is hoping and praying that folks like you all implement?

Dr. HARRIS. I think that is critical, and the AMA 5 years ago looked at the issue of training the next generation of physicians, and we awarded 11 $1 million grants and have since then developed a consortium of other medical schools that can share best practices, and I will say a couple of those medical schools are spe-

cifically focused from our grant, although they were already working in these areas, on two issues that have been raised.

One is the social determinants of health. So we have medical students now getting trained and understanding and appreciating the importance of social determinants of health. And we have a couple of other medical schools that are talking about health disparities, making sure that the future workforce is a diverse workforce so that the faces of our physicians match the faces of our patients, and then, of course, from those learnings we are spreading that out to the consortium of medical schools, and then hopefully that will be spread out to the entire medical school community.

So we are committed and do agree that we need to raise these issues early in training of physicians.

Mrs. BROOKS. Dr. Nelson, I want to commend Parkland.

And thank you, Dr. Harris.

Has the med school community reached out, and are they studying your model in Parkland, and how do we do a better job getting—because it is not just doctors. It is nurses. I am sure there were many nurses that didn't listen to your daughter's needs, not just doctors—doctors, nurses, others. How about the medical training? I don't just mean med schools.

Dr. NELSON. Correct. That is what I was going to build upon. So I am a faculty at the University of Texas Southwestern Medical Center. And we are one of the largest obstetrics and gynecology programs in the country. We have 72 residents in our current existing program. And part of our responsibility is to talk about and begin the training that you heard here. It also extends to the training that we have within our nurse midwives, our advanced practice providers with nurse practitioners, and nursing students who are responsible for training the next generation.

And this is the part that becomes really difficult, is translating the importance and advocacy that we are hearing that we need to share in fighting for our patients and hearing their voice, is something that is our responsibility to carry forward.

Mrs. BROOKS. Thank you all. My time is up, but I certainly hope that our med schools take the opportunity to actually listen to your testimony, to read it and to listen to it. I think it would be incredibly instructive.

With that, I yield back.

Ms. ESHOO. The gentlewoman yields back.

I now would like to recognize the gentleman from Maryland, Mr. Sarbanes, for his 5 minutes of questioning.

Mr. SARBANES. Thank you, Madam Chair.

I want to thank our witnesses for your testimony today. Extremely compelling and in certain instances certainly heartwrenching. So thank you for being here.

Ms. Ranji, I wanted to talk a little bit more about the situation that women can find themselves in when they have to make a switch to different coverage because of the expiration of Medicaid coverage, and we have heard from many of you and it is well documented that the Medicaid, current Medicaid pregnancy coverage only covers women for 60 days after they give birth, and then, at that point, what happens can range from losing coverage com-

pletely, potentially being able to enroll through a marketplace plan on one of the exchanges, et cetera.

Obviously, getting some coverage after that 60 days is better than having no coverage. But I think it is important to recognize that forcing women to change plans during what is a very, very critical time can also generate negative consequences. So I would just like to ask you a few questions about that phenomenon, which is referred to in shorthand as churning.

If a woman gains Medicaid coverage as a result of her pregnancy, what are the coverage options after that coverage ends 60 days post partum? What is the range of things that could happen there?

Ms. RANJI. Right. Well, it really depends where you live. And this is what, when it comes to post partum coverage, there is a lot more variation across the States for low-income women. So, like you said, some women are able to continue on Medicaid. Some may be able to get subsidies to purchase private insurance. Some may be uninsured. But the phenomenon that you refer to, churning, certainly has an impact.

We know that disruptions in conversation are relatively frequent for low-income women around the time of delivery, and we know that churning can negatively affect access to care. It can really result in delays in care, having to switch providers, identifying a new provider network. And down the road that can lead to delays in things like preventive services like cancer screenings, et cetera.

So churning is relatively common among this population when you have to switch plans.

Mr. SARBANES. I mean, in fact, that is exactly the moment in time when someone's condition might change in a way where, if there was a continuous perspective because the coverage was lasting for a longer duration, that change would be captured in terms of the care plan for that particular individual. But because there is a transition happening to a different coverage, potentially involving different providers, involving a different set of benefits as to what is covered and what is not covered, the system will miss the opportunity to identify the kind of care that should be delivered. Then you can end up having drastic consequences from that. Is that correct?

Ms. RANJI. Well, and being able to stay with the same coverage plan can allow you to stay with the same provider and provide that continuity of care from a relationship that a woman may have formed with—during the prenatal period—with the provider, being able to continue with that provider or with that group of providers could streamline her access to follow up on conditions and obtain preventive services.

Mr. SARBANES. I would also imagine that it's going to be easier to deploy strategies for more sensitivity to the patient population, and we have heard testimony about the importance of that today. If the coverage situation is not one that is in flux, it is just better if you have got a longer period of time in which to deploy these strategies to get out in front of some of the biases, discriminatory practices, and other things that we have heard testimony about today.

So, clearly, there are strong arguments in favor of extending the Medicaid coverage period substantially. And that is at the heart of a number of the proposals that we are hearing about today.

Thank you all for your testimony. I appreciate it, and I yield back.

Ms. ESHOO. The gentleman yields back.

It is a pleasure to recognize the gentleman from Montana, Mr. Gianforte.

Mr. GIANFORTE. Thank you, Madam Chair.

Ms. Irving, I just want to say I am sorry for the loss of your daughter. And I want to thank you for being here to tell your story. Unfortunately, Montana has a higher maternal death rate than the national average, and our State faces unique challenges in this space.

Dr. Howell, in your testimony you state that maternal deaths from substance use disorders and mental health are climbing. Unfortunately, methamphetamine use is an epidemic in Montana. How does drug addiction impact maternal deaths, and what changes can we make to help mothers who are facing a drug addiction?

Dr. HOWELL. So, just as substance-use disorders are growing across our country and we are having an opiate crisis, that also affects maternal deaths, as well as from other areas. And, although this is not my area of expertise, I will just share that I think that the risk factors and some of the issues are lack of treatment centers for opiate abuse and also lack of access to opiate replacement therapies.

Mr. GIANFORTE. So our specific problem is methamphetamine.

Dr. HOWELL. So that is not my area of expertise, but I think some of the general things that we know about substance-use disorder can be applied in the maternal healthcare setting and that we don't recognize that there are other options, and there are treatment alternatives and that there is not enough being done. I would defer also to my colleague, if he has more to add.

Mr. GIANFORTE. Dr. Nelson.

Dr. NELSON. So we have a robust perinatal intervention programs that covers opioids as well as methamphetamine use. This requires intense multidisciplinary care. It involves case management, addiction medicine, obstetricians, and pediatricians. And it has implications related to the care of the mother during the pregnancy. It can also have implications to the baby at delivery as well.

Mr. GIANFORTE. OK. Thank you.

Today is World Suicide Prevention Day, and unfortunately Montana leads the Nation in suicide, number one. We understand the impact that a lack of access to mental health services has on our communities. To ensure that people have access to these services they need in the face of this crisis, I recently introduced a bipartisan bill to designate 988 as the National Suicide Prevention Hotline. This is an essential resource for anyone facing mental health crisis. I look forward to working with my colleagues to get this bill through committee, and I hope it will be available to help mothers that we are discussing today.

Dr. Howell, again, if we could, can you describe what is being done especially in rural areas to address the increase in maternal

deaths for mental health complications such as post partum depression?

Dr. HOWELL. So I am not an expert on rural healthcare, coming from New York City. But I can comment that I think a lot of the things that you were hearing about—depression is a major issue for pregnant women and post partum women. You have heard rates of around 15 percent, and so it is a major issue, not only for breastfeeding, maternal-infant bonding, but everything you can think about for both the mother, the child, and the family, and so we have to do a better job around mental health.

Now, in rural areas, just like there are major access issues in cities around mental health, as you have heard, but there is also additional barriers, and so the use of telemedicine, the use of new techniques around cognitive behavioral therapy on, you know, internet platforms, sort of thinking outside of the box is the way that we have to move forward to sort of broaden our ability to reach patients from everywhere around the country.

Mr. GIANFORTE. And that is really essential, particularly in our rural communities. We are not going to have a specialist in every discipline, in every community. Telehealth is one way to do it. So I appreciate your comments there.

Dr. Harris, Montana has seven federally recognized American Indian Tribal Governments. You mention in your testimony that CDC recently released a report that American Indian women are two to three times more likely to die from pregnancy-related causes than White women.

Can you talk a little bit about the key drivers of this disparity in our Native American population?

Dr. HARRIS. So I would imagine that it is about access, it is about bias, all the issues that we have discussed today. We want to make sure that we appreciate all of the issues faced by those who are not of the same community. Again, that is why we stress the importance of a more diverse physician workforce, making sure that those in rural areas have access to healthcare. You mentioned telemedicine. Making sure that everyone, again, has affordable, meaningful coverage.

So I think all of those drivers are the same or similar. They won't be absolutely the same for Native American women as African-American women, and I appreciate your point on methamphetamine being an issue in your State, and I think that is why certainly we need to do all that we can to address opioids, but I think there is an opportunity here to make sure we have an infrastructure for substance abuse disorders in general and not just regarding opioids.

Mr. GIANFORTE. Yes, thank you, Doctor.

And just in closing, Madam Chair, if I could, I want to echo the comments of Ranking Member Walden in his call for additional hearings, and I would just suggest that, if we do that additional hearing, that we might include the Native American voice at the table because the Tribal communities are not represented here today and possibly IHS, Indian Health Services, as well as we continue to look at these issues.

With that, I yield back.

Ms. ESHOO. I think that is an excellent suggestion from the gentleman. And we have two Members of Congress, women Members of Congress, for first time in the history of the Congress, that are Native Americans. So, thank you.

Now I would like to recognize the gentleman from California, Mr. Cárdenas, for his 5 minutes of questioning.

Mr. CÁRDENAS. Thank you so much, Madam Chairwoman.

And also I would like to thank Ranking Member Burgess for having this important hearing on this very important and heartbreaking issue.

I want to also thank all of the panelists for providing your expertise, especially Ms. Irving. You are someone who should have never had to learn so much about this issue and to endure what you have had to endure. So thank you for coming in and enlightening us.

Ms. Irving, I would like to thank you for sharing with us today what you have been going through, and I know it is not about you. It is about making sure that we do better for the families and the women of today and tomorrow. So thank you for enlightening us. As a parent and a grandparent, I can only imagine the pain that you have gone through, and I certainly agree with those who have been calling you very brave, but I would also like to point out that I truly do believe that you are an embodiment of what it is to have faith. And by being here today, you are putting that faith into action.

And I believe that it is incumbent upon us on this side of the room to act responsibly and to do whatever we can to make sure that we pay heed to your advice and the wisdom of all of you so that we can actually take action swiftly and accurately so that less pain is endured by families going forward.

I do have a question for you. Could you please describe for us what high-quality, fair, and respectful post partum care for your daughter could or should have been, should she still be with us?

Ms. IRVING. I think for the first time what should have happened is she should have been able to see her doctor within a week after giving birth. Just like the baby went in 2 or 3 days after birth, there should be a mandatory 1 week, let's come in, let's check you out, let's see how you are doing. She should have been able to call up a doctor or go in and see the doctor right there.

Instead, what she had was she saw a nurse practitioner a couple of times, and that nurse practitioner left and said she came back to see the doctor, but the doctor never showed up at all. So I would think the doctors would follow their patients and make sure that they see the patient and make sure that their symptoms or concerns are addressed right then and there.

Mr. CÁRDENAS. Thank you. What you just described is proper standards of care in the moment, case-by-case, not just theoretically. So thank you so much.

Dr. Howell, we have heard about some of the systematic barriers to care that Black women face. And we know that Hispanic women face many of the same obstacles, as do Native Americans, et cetera. Yet reporting on the rates of maternal mortality for Hispanic women has been inconsistent, and it is difficult to find clarity on what it is telling us.

Can you speak to this issue and what the potential consequences to this lack of data might be?

Dr. HOWELL. Yes. So a perfect example is the national statistics do not suggest that Latina women have an elevated rate. Our pregnancy mortality review done in New York City revealed, when I said that they were 8 to 12 times higher for Black women, for Latina women it was 3 times higher. And it shows you that, when you get more granular data and when you invest in maternal mortality reviews that actually collect data from multiple sources, you can get better data on race and ethnicity. You can get the causes. That allows to us actually see a true story.

Without the data, you don't know. And that is what happens, when you have a vital statistics system that doesn't collect the stuff in a good way. That is why I think it was underreported.

Mr. CÁRDENAS. Thank you.

One of the things I would like to personally comment on that I want to thank all the women who are here in this committee room and also the men, but the women vastly outnumber the men who are guests and experts apprising this important committee on this very, very critical issue.

And I personally want to add to that, that I believe that when this side of the room looks more like that side of the room, I think that, especially when it comes to issues facing women and families, we are going see much quicker, much more accurate results out of what happens in the decisionmaking of this elected body.

I am not casting aspersions on us men or what have you, but what I am saying is, when there are women in the room, you enlighten us in a way that I—and you think of things and approach in a way that I just can't, and I just want to thank you for doing that at every opportunity and certainly today.

Thank you very much. I yield back.

Ms. ESHOO. I thank the gentleman for most especially for those comments, as well as the others.

It is a pleasure to recognize the gentleman from Georgia, Mr. Carter, for his 5 minutes of questions.

Mr. CARTER. Thank you, Madam Chair.

And I want to thank each and every one of you for being here today. This is an extremely important subject.

And especially I want to thank you, Ms. Irving, for being here. Yours is quite a compelling story, and we just cannot say enough about your courage and your work, and we thank you very much for that.

Ladies and gentlemen, I am from the State of Georgia. This is obviously—maternal mortality is a national problem. There is no question about that, but in the State of Georgia, it is a serious problem. In fact, we have the unenviable, unenviable position of being the number one State in the Nation in maternal mortality, and for what reason we can't figure out. But that is what really is driving us to try to do something about this, and I have been doing it. I have been doing it in my district. I have held many roundtable discussions with different groups about why is this and how can we address this situation and how can we make things better, because we all want to make it better. Regardless of which side of the aisle you are on, you want to make it better.

This is not a Republican, this is not a Democrat issue. It does not discriminate against anyone, and we have to work toward a solution, and I have to tell you that I am really proud the last session that Representative Jamie Herrera Beutler, her bill, Preventing Maternal Deaths Act, passed. And that is good. It was signed into law. We need more bills like that, and I am really proud of that.

I will have to tell you I am a little bit disappointed that we don't have some Republican bills that we are talking about here. In fact, we don't have even much Republican input in these bills. And I hope that that is going to change for a couple of reasons.

First of all, we have been out in our district for the past 5 weeks, and I have been proudly proclaiming that not only do I serve on the oldest and the most diverse as far as subject matter is concerned committee in Congress but also the most bipartisan committee, and I consider it to be the most bipartisan committee. So I am a little disappointed—I have to express that to the chairperson—we don't have more Republican bills.

Having said that, I do have to tell you I do have a bill I am working on with Representative Katherine Clark of Massachusetts that has to do with Medicaid. It is a Medicaid demonstration project that tests how we might be able to enhance access to care by better utilizing birth centers. All throughout our testimony today, what we have heard about is access to healthcare. That is extremely important in the solution to this problem. We all understand that. And birth centers, I think, are not being utilized to the point that they could be, and I hope that it is something, and I thank Ms. Clark for working with me on this, and it is something that I want to work with her on.

Ms. Ranji, I will ask you first. Again, one of the things that we have heard during this testimony has been access to healthcare. And I would just ask you, is there a better place or a place for a better use of birth centers, that we could possibly use them in a potential solution or a partial solution to this national health problem?

Ms. RANJI. Well, thank you for the question.

Just as Medicaid policies vary between States, it is a similar situation with birth centers, and so while birth centers themselves are not my area of expertise, I know the availability and the certification and the licensing procedures and practices vary between the States. I could certainly see that there would be room for growth of presence in birth centers and coverage under Medicaid, but, again, the availability and access, those vary a lot between localities, and the financing policies would then have to be worked out with it on the State level.

Mr. CARTER. One thing I will inform you about is that I represent South Georgia. You know, there are two Georgias. There is Atlanta and everywhere else, and I am in everywhere else. So birthing centers are extremely important for us and particularly in the rural areas. So that is why I look at that, and I am excited this bipartisan bill that Representative Clark and I are working on.

Dr. Nelson, I want to ask you. Currently I am the only pharmacist serving in Congress. So I have a very—an interest in opioid epidemic and a very strong interest in how it is impacting maternal health.

And I just wanted to ask you, could you very quickly help us to understand, when you have a mother who is going through an opioid addiction, how they are handled and treated during the pregnancy?

Dr. NELSON. So the problem of opioids is also a major crisis for this country. In 2017 alone in Parkland, we delivered 69 women with opioid disorder. In 2018, I personally toured Dr. Giroir and Dr. Adams, the Assistant Secretary of Health and the U.S. Surgeon General, through Parkland Hospital to see our program. Our program is comprehensive, and the challenges are both related to the maternal care, the risks to mom, but also the neonatal opioid withdrawal syndrome risk to the baby. And that is a chronic, life-changing opportunity for us to have resources provided for a pregnant mother and her unborn child.

Mr. CARTER. Real quickly, just how do you get over the stigma—or not stigma, but the obstacle of a mother who is addicted that doesn't want that to be known, so she doesn't reach out for care? I know that has got be a problem and something we have got to address as well.

Dr. NELSON. I agree that stigma is important. Our service as physicians is to be a healthcare home for those patients and to provide them access, and that is a complex issue related to interfacing the legality of some of those circumstances. But our first and foremost effort should be providing access to care to those women and getting them resources to potentially even get better.

Mr. CARTER. Great. Thank you all for being here. This is a most important subject, especially for the State of Georgia and for our country.

Thank you, and I yield back.

Ms. ESHOO. The gentleman yields back.

It is a pleasure to recognize Mr. Engel from New York, who is the author of the Quality Care for Moms and Babies Act.

Thank you for your solid work, Mr. Engel. And you are recognized for 5 minutes of questioning.

Mr. ENGEL. Thank you. Thank you, Madam Chair.

And thank you for holding this very, very important hearing.

And thank you to all the panelists. Thank you so much. We appreciate everything that you have done.

Ms. Irving, I want to single you out because what you are doing today takes an enormous amount of courage, and so God bless you and know that we support you, and what you are doing today will save the lives of countless other people tomorrow. So thank you for having the courage.

I want to thank the chairwoman and the—Chairman Pallone for holding today's subcommittee hearing on the Nation's maternal mortality crisis and which includes my bipartisan, as the chairman said, bicameral legislation, the Quality Care for Moms and Babies Act. The bill would bring together diverse stakeholders to develop care quality benchmarks for women and children, as well as to also find existing and new quality collaboratives.

Quality collaboratives are on the front lines of the efforts to end this crisis. The New York State Quality Collaborative has developed resources to address the leading causes of maternal deaths in New York, which include hypertension and hemorrhaging. These

resources were distributed to over 126 birthing hospitals in New York.

So I urge Members on both sides of the aisle to support this commonsense, bipartisan legislation. I would also like to ask for unanimous consent to submit a letter of support from many organizations, including March of Dimes, the American College of Obstetricians and Gynecologists, in support of Quality Care For Moms and Babies Act.

Dr. Howell, it is always good to see more New Yorkers in Washington. I get lonely over here. So please come back, and thank you for the great work that you do and that Mount Sinai does as well. Mount Sinai, of course, is very well known in New York and very well respected.

So I want to personally thank you, Dr. Howell, for your service on the New York State Task Force of Maternal Mortality, and it is my understanding that the task force issued a report this past March in which it recommended expanding the New York State Perinatal Quality Collaborative and as you know, as you mentioned, which I appreciate you mentioning it, I am sponsoring the Quality Care for Moms and Babies Act with my friend, Congressman Steve Stivers. It is a bipartisan bill. Our legislation authorizes funding for existing and new perinatal quality collaboratives.

Let me ask, you Dr. Howell. Can you again share—I think it is worth repeating—why developing and sustaining perinatal quality collaboratives is an important tool for addressing racial and ethnic disparities in maternal health outcomes?

Dr. HOWELL. It is a very important tool for us to use across the United States, as well as in New York, because it allows us to build—have partnerships with physicians and nurses, with departments of health, hospitals, and health systems to target specific processes based on the evidence that we can target together to improve, and we have done it in a number of different situations, not only in terms of the bundles that you have heard about but in terms of trying to lower our cesarean section rates, in terms of our elected delivery rates. We have done it on the NICU side.

So it is these groups that can take the shared learning and utilize that to help make improvements in hospitals, and your bill supports that, and I think it is a really wonderful and important part of this story that we need to advocate for.

Mr. ENGEL. Well, thank you, and I have high hopes that we will pass the bill and pass it on the floor and hopefully get it passed in the other body and have the President sign it into law. So thank you for everything you are doing.

Dr. Harris, let me ask you. In your written testimony, you note that the quality of maternal care can vary greatly by provider and facility. Given that public health programs cover most births in the U.S., with Medicaid alone covering 43 percent of them, I believe obviously these programs are uniquely situated to improve maternal health.

To that end, the Quality Care for Moms and Babies Act would direct the development of a core set of maternal and infant health performance measures for Medicaid and CHIP that promote best practices.

So let me ask you, Dr. Harris, how would the creation of this measure core set affect the quality of care and reduce maternal morbidity and mortality, especially for women of color?

Dr. HARRIS. Mr. Engel, Congressman Engel, if you don't mind, I would like to let Dr. Howell talk about the specifics of that, of the core metrics, and how they would help. But from sort of the 30,000-foot view, it is very important to have the data. Data then informs. And that is, again, why the AMA is very supportive of these review committees. You have heard a lot today, but there is no sort of one-size-fits-all solution, and patients are unique.

And as Dr. Howell mentioned earlier, California has done a great job of reducing mortality but not African-American women. So we still need to look at the data and why overall mortality decreased but not African-American women.

So I think the opportunity there is to get that data, get the data specifically for African-American women. And then, once we get that data, it is important to have funding to implement what we find in the data. So I would say that from a 100,000-foot view and let Dr. Howell talk about specific measures that should be included to improve those disparities.

Mr. ENGEL. Well, thank you.

If the chairwoman will indulge, we will have Dr. Howell.

Dr. HOWELL. So, I think it is incredibly important that we develop quality measures in maternal healthcare that are both patient-centered and address disparities. We have done work showing that hospital performance on primary, low-risk cesarean or hospital performance on elective delivery is not correlated with hospital performance on severe maternal morbidity.

So the current group of quality measures don't really provide information to mothers about the different facilities in terms of safety, and they weren't correlated either with neonatal morbidity at term. We need better quality measures that can serve and we can give to the public so that they can better understand what is going on.

So your bill that advocates for quality measure development I think is really instrumental and a very important piece. And having quality measures also target disparities and address disparities is another piece, because previous data shows that the quality measures in obstetrics are not really doing that either.

Mr. ENGEL. Thank you.

Thank you, Madam Chair, for your indulgence. And thank you for all the great work you are doing.

Ms. ESHOO. Thank you for your work, Mr. Engel, and this sounds like a resounding—we recognize endorsements, don't we, when they occur? I think I just heard one.

I now would like to recognize the gentleman from Illinois, Mr. Rush, who is—I am really pleased to be joining him in his congressional district in a handful of weeks where he is conducting a field hearing on this very issue.

And you are now recognized for 5 minutes for your questions.

Mr. RUSH. I want to thank you, Madam Chair, and I certainly want to applaud you for holding this critically important hearing.

Ms. Irving, I feel you. I understand some of what you are going through. I am reminded just this very day that, some 10 years ago,

this very same committee, subcommittee, had a hearing on post partum depression. I had introduced a bill entitled the Melanie Blocker-Stokes Postpartum Depression Act of 2007, and her mother, Melanie Blocker-Stokes' mother, Ms. Carol Blocker, sat at this very same table that you are sitting at some 10 years ago.

Melanie was one of my constituents who had been seeing a series of doctors post partum, and none of them diagnosed the depression that she was going through. And she ultimately, on a bright Saturday morning, spring Saturday morning, went up to a hotel in Chicago, on near the north side of Chicago, and leaped to her death from the 10th floor, and the cause of it was post partum depression.

So here you are, another mother in a line of mothers who are coming to this Congress asking and pleading and bringing your pain to this—to our presence, to this table, asking us to help, and I want you to know that some of us are determined to provide the help that you are seeking and other mothers are seeking.

My bill was—the language of my bill was included in the ACA Act, in the Obamacare, and I was very pleased with that, but we have such a long, long way to go in order to deal with it. So I applaud you, and I commiserate with you, and I just—you know, your pain is a pain that generations will remember and will bear until we are able to solve this problem of maternal mortality.

I want to move to questioning, if I have got a few moments here. And I want to ask Dr. Ranji. Dr. Ranji, I am curious about doulas and the effect on the healthcare system of doulas, and can you explain to us why you think that doulas can improve health outcomes, and also can you address what are some of the cultural and economic variants to presenting a nationwide system that would include doulas?

Ms. RANJI. Well, the research shows that women and moms have expressed, in many surveys, have expressed interest in having doulas care, more support during the prenatal, labor, and delivery, and post partum periods. There is, you know, some sense—we talked earlier, the panel was talking about the ability to be able to, sometimes for patients being able to challenge providers or ask for what they need, and there is some research showing that women have said that maybe if they had more support, for example, with assistance of a doula, that that might be part of expanding her ability to be able to recognize and sort of understand what her options are.

Currently, under Medicaid, only two States, as far as I know, Oregon and Minnesota, include coverage for doulas, but there are some other States that have certainly been considering it, and New York is one that has a pilot program going in certain parts of the State where they are also considering, at least are doing for some women, expansion of coverage for doulas.

Mr. RUSH. So do you know of any—what are some of the barriers that you see that we may face in terms of implementing or creating a doula care system?

Ms. RANJI. Right. Well, some of the barriers include sort of administrative and procedural barriers. Right now, you know, Medicaid reimburses licensed medical practitioners, and the sort of doula training standards and doula certification and licensing is

still an area that is in work. It is not an area that I have focused on, but there is a lot of published research out there that I certainly will also be able to share with you, if that is of interest.

Mr. RUSH. I want to thank you, Madam Chair.

I yield back.

Ms. ESHOO. I thank the gentleman for his work on this issue, and I look forward to the hearing in your district.

Now I would like to recognize Ms. Schakowsky of Illinois, who is a member of our full committee and is waiving onto the Health Subcommittee today where she served for many years.

So you are recognized for your 5 minutes of questions.

Ms. SCHAKOWSKY. Thank you so much, Madam Chair, for allowing me to waive onto today's hearing. And it is such an important one.

I want to thank all the witnesses. And I want to give a special thank you to my friend and colleague from Illinois, Robin Kelly, who has been such a champion of this issue for our State.

Illinois has been one of the most extreme pregnancy-related death disparities in the Nation. According to data from our Department of Public Health, Black women are six times more likely to die of pregnancy-related conditions as White women. It is just totally unacceptable.

And I want to say a really special thank you to Ms. Irving, and I am so grateful that you have shared your daughter, Shalon's, story with us today, and I just want to add when I read the article that was given to us that this is the third child and the last child that you have also buried. So I am so sorry for that.

I fully believe the words of your testimony, that this disparity, quote, "has to do with the appallingly way Black women are or aren't attended to or listened to," unquote. I am complete—I am fully supportive of extending Medicaid coverage for the post partum care up to—from 60 days to 1 year, as the bill that we are considering today proposes, and though that will make a transformative change, that is certainly not enough.

Ms. Irving, I wanted to ask you a question. Here you have such an educated daughter in the healthcare field. She is a doctor herself. What did the physicians tell her as she continued to suffer after the birth of her daughter that somehow indicated that they must not have been hearing her?

Ms. IRVING. Every time she went to the doctor's office—and there were probably at least five times, three times I know of, in 1 week—each time it was a dismissive "You just had a baby, give it time, you will feel better."

Ms. SCHAKOWSKY. Did they do any of the tests that would have indicated what the problems were?

Ms. IRVING. On the last day that she went, which was the 24th, 5 hours before she collapsed, she went in, and they gave her a test for preeclampsia, but since she didn't have any blurriness of vision, they said, "Well, we can rule that out."

And they gave her a test for blood clotting. She said, "I have had blood clots. I know what they feel like. This is not a blood clot."

And, of course, it wasn't a blood clot. But her blood pressure was still off the roof. I think if I am correct it was 174 over 119, and she was sent home, and 5 hours later she collapsed.

Ms. SCHAKOWSKY. You also said in your testimony that essentially that no one is really immune, regardless of education, et cetera.

Ms. IRVING. No.

Ms. SCHAKOWSKY. And that the issue of racial disparities is certainly a huge problem.

I wanted to ask Dr. Howell a question. I am interested in the idea of holding hospitals accountable for maternal care, maternity care through a value-based care model. Do you believe that bundled payments for an entire episode of maternal care could give health systems more incentives and greater control to improve the pregnancy-related outcomes from beginning to end, with regard to racial disparities in particular?

Dr. HOWELL. I think we need more work on alternative payment models to think about maternity care and incentivize clinicians and hospitals correctly. I do worry about unintended consequences, specifically that certain hospitals will be penalized if we don't do this right in terms of the fact that they have the highest-risk patients and we are not recognizing that. So I think there is a lot of work to be done in this space. I don't have the perfect solution yet because I want to make sure that we think about those unintended consequences as we move forward.

Ms. SCHAKOWSKY. So do you think bundled payments may be one thing that at least should be explored so that, from prenatal care through the full year, maybe issues like post partum depression be considered in a bundle of payments?

Dr. HOWELL. I think they should be explored. I think that the measures that they would be accountable for would need to be partnered with new quality measures that are really well developed and so that we have the right things. Some of those measures would also be targeting disparities. So, if you measure the success based on those quality metrics that look at patient-centeredness and disparities, it might be a promising avenue, but, again, always remembering that we can't penalize those hospitals that take care of the sickest patients. So we have to make sure that we are accounting for that in our models.

Ms. SCHAKOWSKY. We also want to make sure that diversity in the workforce is there so that everyone is represented at every level of care. Thank you so much.

And, again, Ms. Irving, thank you so much very much.

I yield back.

Ms. ESHOO. The gentlewoman yields back.

I want to, on behalf every member of the subcommittee, I want to thank each witness.

Ms. Irving, there really aren't words. You are a source of inspiration to us to move ahead in your daughter's name, in your name, in your granddaughter's name, and I think that if—I think as she is watching and listening from heaven, she is—you can hear the "Bravos" from there. Thank you. Thank you.

You really have, you have touched all of us, and we are not going to rest until we have solid legislation that addresses this and that this statistic in the United States of America piercing the conscience of our country, and I think it is a combination of things, women being undervalued, women not being listened to. In the his-

tory of humankind, no man has given birth to a child, and so I remember the doctor saying to me, "Well, they are the blues, but they will go away." So we have a lot of work to do. Thank you.

Thank you to you, Dr. Harris, Dr. Howell, Dr. Nelson, Ms. Ranji. This has been an outstanding hearing.

Mr. RUSH. Madam Chair, if I just could for 10 seconds.

Ms. ESHOO. Sure.

Mr. RUSH. Ms. Irving, I was just looking at some notes. Melanie was also in the healthcare area. She was a pharmaceutical sales manager. So she was very aware of health issues with doctors. Her husband was a physician, and she had a daughter, only child, and her name was Summer. So your granddaughter's name is Soleil. So there are so many similarities here.

I wanted to note that for the record.

Thank you, Madam Chair.

Ms. ESHOO. OK. I would like to remind Members that, pursuant to committee rules, they have 10 business days to submit additional questions for the record to be answered by the witnesses.

And I know that you will all cooperate, give straightforward, succinct answers. OK?

And I ask each witness to do so promptly to any questions that you may receive.

I now want to ask unanimous consent to enter into the record the following: a statement from the March of Dimes; a statement from the American College of Obstetricians and Gynecologists; a statement from the American Hospital Association; a statement from America's Health Insurance Plans; a report from the Center for American Progress on racial disparities and maternal mortality; a coalition letter from the American College of Nurse-Midwives, et al.; a statement from the Premier Healthcare Alliance; a statement from Gauss Surgical; a report from Premier Incorporated on maternal health trends; a report from ProPublica and NPR on maternal mortality.

So I ask for unanimous consent.

Mr. GUTHRIE. No objection.

Ms. ESHOO. So ordered.

[The information is available at the conclusion of the hearing.[1]]

Ms. ESHOO. And this will conclude our hearing today. The subcommittee is adjourned.

[Whereupon, at 1:25 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

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[1]The Center for American Progress report has been retained in committee files and also is available at https://docs.house.gov/meetings/IF/IF14/20190910/109919/HHRG-116-IF14-20190910-SD006.pdf.

Statement for the Record Submitted by
Stacey D. Stewart, President and CEO, March of Dimes
Hearing of the House Energy & Commerce Committee's Subcommittee on Health
"Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care"
Tuesday, September 10, 2019

March of Dimes, a unique collaboration of scientists, clinicians, parents, members of the business community, and other volunteers representing every state, the District of Columbia and Puerto Rico, appreciates this opportunity to submit testimony for the record for the hearing, "Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care." March of Dimes applauds you for holding this hearing to consider policy proposals to address our nation's maternal health crisis.

Each day, in thousands of delivery rooms across the country, mothers cradle newborns wrapped in the iconic pink and blue stripped receiving blanket. They will bundle their new baby girl or boy in the same blanket as they go home for the first time, and swaddle their infant in the soft flannel during the early sleepless nights. Tragically, more than 700 infants will keep their hospital receiving blanket, but will not have their mothers to lovingly wrap them in it. In the United States, 700 mothers die from pregnancy-related causes each year, and more than 50,000 others experience dangerous complications that could have killed them -- making the United States the most dangerous place in the developed world to give birth.[i] For women of color, the dangers of giving birth are even more acute. Black mothers of all ages are more than three times as likely to die from pregnancy-related complications as their white peers.[ii] The rates of pregnancy-related death for black and native women over the age of thirty are four to five times higher than their white peers.[iii]

Our nation is in the midst of a crisis in maternal and child health. Virtually every measure of the health of pregnant women, new mothers, and infants is going in the wrong direction. Preterm birth rates are rising. In many communities, infant mortality rates exceed those in developing nations. Nations such as Slovenia and French Polynesia have a better infant mortality rate than the United States.[iv]

Striking disparities exist among the health of mothers and babies of different racial and ethnic backgrounds. Black children face the highest child mortality rate among racial/ethnic groups – more than two times higher than the rate for Asian children and 1.5 times higher than the rate for white children.[v] There are dramatic variations in key measures like well-visits for women and infants among different racial and ethnic groups, as well as geographic areas.

Maternal Mortality and Severe Maternal Morbidity Are a Public Health Crisis

Women across the United States are tragically dying or suffering serious consequences from pregnancy-related causes. Despite the fact that many countries around the world have successfully reduced their maternal mortality rates since the 1990s, the U.S. rate is still higher than most other high-income countries,[vi] and the U.S. maternal mortality rate has doubled in the past 25 years.[vii] A significant racial and ethnic disparity in maternal mortality exists in the United States, with black women being three times more likely to die from pregnancy-related causes compared to white women.[viii,ix] These disparities cannot be explained by differences in age or education. According to the latest data from the Centers for Disease Control and Prevention (CDC), maternal mortality rates among black women with a completed college education or higher was 1.6 times that of white women with less than a high school diploma.[x]

Maternal mortality is also significantly higher in rural areas, where obstetrical providers may not be available,[xi] and delivery in rural hospitals is associated with higher rates of postpartum hemorrhage.[xii] In October 2018, March of Dimes released a report showing that 5 million women live in "maternity care deserts," which are communities without a hospital offering obstetric services or providers. Each year, 150,000 babies are born to mothers living in maternity care deserts.

Of the 700 pregnancy-related deaths in the United States, approximately one-third occur during pregnancy, another third happen during delivery and up to one week afterward, and the final third come in the year following delivery.[xiii] The CDC estimates that up to 60 percent of these deaths are preventable.[xiv] For every maternal death, there are about 100 episodes of severe maternal morbidity (SMM) affecting more than 50,000 women in the United States every year.[xv] Black women are 27 percent more likely to experience severe pregnancy complications than white women.[xvi]

According to the CDC, pregnancy-related deaths are those that occur during pregnancy or within the following year due to pregnancy complications, because of a chain of events initiated by pregnancy, or because of an unrelated condition that was aggravated by pregnancy.[xvii] SMM includes unexpected outcomes of labor and delivery that result in significant short or longer term consequences to a woman's health.[xviii]

Causes of maternal deaths include cardiovascular conditions, hypertensive disorders of pregnancy (preeclampsia/eclampsia), infection, hemorrhage, suicide and drug overdose. Identifying and treating medical conditions before, during and after pregnancy are essential to preventing maternal morbidity and maternal mortality, as part of the continuum of care for all women of childbearing age. This requires a commitment to high-quality clinical care and enhanced maternal quality improvement and safety initiatives in hospitals, particularly those that address disparities, structural barriers to care, differential care experienced by women of color, and provider implicit racial bias.[xix]

March of Dimes supports efforts to eliminate preventable maternal mortality and SMM and the unacceptable large disparities in rates experienced by black and native women. To achieve this, March of Dimes:

- Encourages every state to have a maternal mortality review committee (MMRC) that investigates each death of a pregnant woman or new mother to understand causes and recommend interventions for the future.
- Supports efforts to improve ways to collect data on maternal mortality and SMM, research into their causes and prevention, and promotion of proven ways to keep all mothers healthy.
- Champions policies to address provider implicit bias and eliminate systemic barriers in health care that perpetuate inequities in maternal health outcomes.
- Supports ensuring access to inpatient obstetrical facilities and qualified obstetrical providers, including Certified Nurse Midwives and Certified Midwives, in underserved and rural settings.
- Supports state perinatal quality collaboratives working with hospitals to identify and review cases of SMM and implement quality improvement initiatives to improve care and promote optimal maternal health.
- Supports efforts to ensure that all women have quality, affordable health insurance and health care to include but not limited to postpartum depression screening, mental health treatment, substance use treatment, affordable contraception, including long-acting reversible contraception (LARC), and access to health care providers who understand and meet their health needs before, during and after pregnancy.
- Champions extending health insurance coverage offered to new mothers through Medicaid and the Children's Health Insurance Program (CHIP) to a full year after pregnancy.
- Supports improving the social and economic conditions and quality of health care at all stages of a woman's life.
- Encourages acceleration of policies and programs shown to provide preventive and supportive care for women during pregnancy and childbirth, including group prenatal care and coverage for doula services.

Opportunities for Congressional Action

Last year, Congress took an important step toward addressing the nation's maternal mortality crisis by passing the *Preventing Maternal Deaths Act of 2018* (P.L. 115-344). This legislation is helping states to support MMRCs to review each instance of maternal death and develop recommendations to prevent them in the future. In FY 2019, Congress also provided $50 million in new funding to support state reviews and other activities to protect the health of pregnant women and new mothers.

Congress cannot stop now. We know that the causes of maternal mortality and SMM are diverse; they include physical health, mental health, social determinants, and much more. They can be traced back to issues in our health care system, including quality of care, systemic

problems, and implicit bias. They stem from factors in our homes, our workplaces, and our communities. **The effort to save women's lives can't just end with one bill. Congress must build upon its record of success by advancing a comprehensive legislative package in the 116th Congress that incorporates the principles outlined above.** March of Dimes has endorsed several bills in this Congress (Table 1) that advance these important tenets.

We are pleased that today's hearing will focus specifically on the MOMMA's Act (H.R. 1897), the Quality Care for Moms and Babies Act (H.R. 1551), the Maternal CARE Act (H.R. 2902) and the Healthy MOMMIES Act (H.R. 2602). Each one of these bills includes proposals that are essential to address the multifaceted contributors to maternal mortality and SMM. March of Dimes thanks Reps. Robin Kelly (D-IL), Eliot Engel (D-NY), Steve Stivers (R-OH), Alma Adams (D-NC) and Ayanna Pressley (D-MA) for championing maternal health and spearheading these important bills.

March of Dimes encourages the Energy & Commerce Committee to demonstrate its commitment to healthy mothers by working in a bipartisan fashion to craft a comprehensive legislative package to address maternal mortality and SMM that incorporates proposals from H.R. 1551, H.R. 1897, H.R. 2902, H.R. 2602, and the other bills listed below. We stand ready to assist you in this effort to protect and improve the health of all women and babies.

TABLE 1

MOMMA's Act (H.R. 1897/S. 916) *Rep. Robin Kelly (D-IL)* *Sen. Dick Durbin (D-IL)*	- Authorizes the Alliance for Innovation on Maternal Health (AIM) program and state-based perinatal quality collaboratives (PQCs). - Extends postpartum coverage for women served by Medicaid, the Children's Health Insurance Programs (CHIP), and the Special Supplemental Nutrition Program for Women, Infants and Children (WIC). - Supports implicit bias and cultural competency training. - Improves national maternal mortality surveillance.
Quality Care for Moms and Babies Act (H.R. 1551/S. 1960) *Reps. Eliot Engel (D-NY) and Steve Stivers (R-OH)* *Sen. Debbie Stabenow (D-MI) and Sen. Susan Collins (R-ME)*	- Authorizes state-based PQCs. -Creates a core set of maternal care quality measures.
MOMS Act (S. 116) *Sen. Kirsten Gillibrand (D-NY)*	- Authorizes the AIM program and supports hospital implementation of best practices. - Improves national maternal mortality surveillance.
MOMMIES Act (H.R. 2602/S. 1343) *Rep. Ayanna Pressley (D-MA)* *Sen. Cory Booker (D-NJ)*	- Extends postpartum coverage for women served by Medicaid and CHIP. - Creates a maternity care home demonstration project. - Requires reports on access to doula care and how states are using telemedicine to increase access to maternity care.

Maternal Care Access and Reducing Emergencies (Maternal CARE) Act (S. 1600) *Sen. Kamala Harris (D-CA)*	- Support evidence-based implicit bias training. - Establishes a demonstration project for implementing pregnancy medical homes. - Directs the National Academy of Medicine to make recommendations for incorporating implicit bias recognition in U.S. medical schools.
The Healthy Maternity and Obstetric Medicine Act (Healthy MOM Act) (H.R. 2778/S. 1481) *Rep. Bonnie Watson Coleman (D-NJ)* *Sen. Sherrod Brown (D-OH)*	- Establishes a special enrollment period for expectant mothers to sign up for health insurance. - Extends postpartum coverage for women served by Medicaid. - Ensures comprehensive coverage of maternity care.
Rural Maternal and Obstetric Modernization of Services (MOMS) Act (S. 2373) *Sens. Tina Smith (D-MN), Lisa Murkowski (R-AK), Doug Jones (D-AL), and Shelley Moore Capito (R-WV)*	- Establishes new rural obstetric network grants. - Integrates maternal and obstetric care into existing federal telehealth grant programs. - Creates a new rural maternal and obstetric care training program. - Improves rural maternal and obstetric care data.

[i] March of Dimes. *Nowhere to Go: Maternity Care Deserts Across the U.S.* October 2018. Available at https://www.marchofdimes.org/materials/Nowhere_to_Go_Final.pdf.

[ii] Petersen EE, Davis NL, Goodman D, et al. Vital Signs: Pregnancy-Related Deaths, United States, 2011–2015, and Strategies for Prevention, 13 States, 2013–2017. MMWR Morb Mortal Wkly Rep 2019;68:423–429. Available at: http://dx.doi.org/10.15585/mmwr.mm6818e1.

[iii] Petersen EE, Davis NL, Goodman D, et al. Racial/Ethnic Disparities in Pregnancy-Related Deaths — United States, 2007–2016. MMWR Morb Mortal Wkly Rep 2019;68:762–765. Available at: http://dx.doi.org/10.15585/mmwr.mm6835a3external.

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[xiii] Petersen EE, Davis NL, Goodman D, et al. Vital Signs: Pregnancy-Related Deaths, United States, 2011–2015, and Strategies for Prevention, 13 States, 2013–2017. MMWR Morb Mortal Wkly Rep 2019;68:423–429. Available at: http://dx.doi.org/10.15585/mmwr.mm6818e1.

[xiv] Ibid.

[xv] CDC. Severe Maternal Morbidity in the United States. Available at: https://www.cdc.gov/reproductivehealth/maternalinfanthealth/severematernalmorbidity.html

[xvi] Leonard SA, Main EK, Scott KA, et al. Racial and ethnic disparities in severe maternal morbidity prevalence and trends. Annals of Epidemiology 2019:33:30-36. Available at https://www.sciencedirect.com/science/article/pii/S1047279718308998.

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[xix] Jain JA, Temming LA, D'Alton ME, et al. SMFM Special Report: Putting the "M" back in MFM: Reducing racial and ethnic disparities in maternal morbidity and mortality: A call to action. Am J Obstet Gynecol 2018;218(2):B9-B17.

Statement for the Record

Of

The American College of Obstetricians and Gynecologists

Before the

House Committee on Energy & Commerce

Subcommittee on Health

Regarding the Hearing

Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care

September 10, 2019

Chairwoman Eshoo, Dr. Burgess, Chairman Pallone, Ranking Member Walden, and distinguished members of the House Energy & Commerce Subcommittee on Health, thank you for holding today's hearing entitled "Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care." The American College of Obstetricians and Gynecologists (ACOG), is pleased to submit this statement for the record in support of your efforts to advance bipartisan legislation to improve maternal health outcomes. ACOG, with a membership of more than 58,000, is the leading physician organization dedicated to advancing women's health. Key to that mission is our core value that all women should have access to affordable, high-quality, safe health care.

Background

As you know, the United States has a maternal mortality crisis. More than 700 women die each year in the United States from pregnancy-related or pregnancy-associated complications.[i] We have a higher maternal mortality rate than any other developed country. At a time when 157 of 183 countries in the world report decreases in maternal mortality, ours is rising.[ii] Black women and Native American/Alaska Native women are two to three times more likely to experience a pregnancy-related mortality than white women.[iii] For every maternal death in the United States, there are 100 women who experience severe maternal morbidity, or a "near miss." This is all unacceptable, and the time for action is now. ACOG is committed to our goal of eliminating preventable maternal deaths, and we are eager to continue our strong partnership with this Committee and other valuable partners to achieve this important goal.

We know, and the Centers for Disease Control and Prevention (CDC) has confirmed, that over 60 percent of maternal deaths are preventable.[iv] Common causes include hemorrhage, cardiovascular and

coronary conditions, cardiomyopathy, and infection. Overdose and suicide, driven primarily by the opioid epidemic, are also emerging as leading causes of maternal mortality in a growing number of states.[v] If we have a clear understanding of why these deaths are occurring, and what we can do to prevent them in the future, we can save women's lives.

We applaud this Committee and your colleagues in the US Congress for taking an important first step last year in passing the Preventing Maternal Deaths Act, P.L. 115-344, to encourage states to create and expand maternal mortality review committees (MMRCs). MMRCs are multidisciplinary groups of local experts in maternal and public health, as well as patient and community advocates, that closely examine individual maternal deaths and identify locally-relevant ways to prevent future deaths, saving mothers' lives. While traditional public health surveillance using vital statistics can tell us about trends and disparities, MMRCs are best positioned to comprehensively assess and characterize maternal deaths, to understand the causes and contributing factors and identify opportunities for prevention.

The CDC recently announced the first round of funding for the newly established Enhancing Reviews and Surveillance to Eliminate Maternal Mortality (ERASE MM) Program, supporting 25 states in their efforts to coordinate and manage MMRCs. This rapid implementation of P.L. 115-344 enables us to look ahead to how we can support states in their efforts to translate the findings of their MMRCs to meaningful action and improved maternal health outcomes.

Accelerating Evidence-Based Patient Safety Changes

Once those opportunities for prevention are identified by MMRCs, states can best target resources toward needed interventions. The Alliance for Innovation on Maternal Health, or the AIM program, is

helping translate MMRC findings and recommendations into action at the state and facility levels. The AIM program is a national cross-sector, data-driven maternal safety and quality improvement initiative working in partnership with states, birthing facilities, and communities to increase adoption of evidence-based maternal safety best practices. Launched in 2014, the AIM program is funded through a cooperative agreement from the U.S. Department of Health and Human Services (HHS), Health Resources and Services Administration's (HRSA) Maternal and Child Health Bureau (MCHB). Program activities are implemented with oversight and program management from ACOG staff members.

The goal of AIM is to reduce maternal deaths and severe maternal morbidity by engaging provider organizations, state-based public health systems, consumer groups, and other stakeholders within a national partnership to assist state-based teams in implementing evidence-based maternal safety best practices. AIM's vision is to offer every pregnant woman in the US a safe birthing experience by improving the culture and delivery of maternity care services. AIM's goal is accomplished through 1) promoting safe and respectful maternal care for every US birth, 2) engaging multidisciplinary partners at the national, state and hospital levels, 3) developing and implementing evidence-based maternal safety best practices, 4) utilizing data-driven quality improvement strategies, and 5) aligning existing safety efforts and developing, collecting, and promoting the use of maternal safety resources.

To participate in the AIM program, states must have an MMRC or another state-focused initiative that collects, analyzes, and reports maternal health outcome data. Also key to the successful implementation of the AIM program are state perinatal quality collaboratives (PQCs), largely considered the implementation arm of MMRCs. The CDC provides oversight and resources to PQCs through its National Network on Perinatal Quality Collaboratives (NNPQC), which is focused on accelerating improvement efforts for both maternal and infant health outcomes. This coordinated collaboration at the federal level

helps to support and enhance the ability of PQCs to adopt and implement AIM maternal safety bundles. Hospitals and health systems implementing AIM's evidence-based maternal safety best practices, such as obstetric hemorrhage, severe hypertension in pregnancy, and obstetric care for women with opioid use disorder, aren't bound by a single protocol, but instead have a standard framework for each facility to develop protocols specific to its resources and patients. Currently in the pilot phase is a maternal safety best practice tool specific to reduction of racial/ethnic disparities, with the goal of incorporating into each AIM patient-safety best practice.

Implementation of a particular program is not enough to achieve meaningful, sustained change in outcomes. AIM promotes a culture of safety and teamwork, encouraging multidisciplinary drills for ob-gyns, anesthesiologists, certified nurse-midwives, nurses, and laboratory staff, to ensure readiness of the team for complications that may be rare, but are life-threatening.

AIM is now in 27 states, reaching roughly 1300 birthing facilities in the US. Early indications support AIM as a critical way we as a Nation can help ensure high quality maternity care for every woman, regardless of her race, income, or location.

At the same time, we must address the rural access gap, exacerbated by the rapid rate of rural hospital closures and the shuttering of obstetric units, and its impact on adverse maternal health outcomes. ACOG is working closely with the American Academy of Family Physicians and the National Rural Health Association to ensure access to high quality maternity care for every woman, regardless of if you live in a rural, urban, or suburban community. As the Committee considers potential actions to address maternal mortality, we urge you to keep this access concern front of mind, support policies that increase the

number of physicians and nurses practicing in rural communities, and ensure that no actions unintentionally exacerbate rural access gaps.

Addressing Racial Disparities

While there is an AIM bundle specific to reducing perinatal racial and ethnic disparities, we know that is just a start, providing the guidance for collection of data, utilization of a disparities dashboard in all birthing facilities and clinics, and examination of bias. We intend to incorporate mechanisms to address disparities in all AIM bundles.

To help achieve that in a meaningful way, ACOG is working with our partners at the National Birth Equity Collaborative and the California Maternal Quality Care Collaborative to eliminate preventable maternal mortality by raising up the voices and experiences of Black women through Mother's Voices Driving Birth Equity, a project funded by the Robert Wood Johnson Foundation. This work is being led by Black scholars to better understand Black women's birth experiences in different geographic regions.

Through this project, we'll be able to incorporate patient voices and lived experiences in our patient safety work. If we hope to change how care is delivered, we must ensure that the methods hospitals and clinicians use to address implicit bias and racism align with Black women's needs, values, and preferences. Black women's feedback must be a driver for quality improvement measures.

We recognize that we – and all care providers – have work to do and are committed to addressing implicit bias and increasing the provision of culturally competent care to our patients.

Extending Medicaid Coverage Postpartum

Medicaid is the largest single payer of maternity care in the US, covering 42.6% of births.[vi][1] Yet that coverage ends roughly 60-days postpartum. As MMRCs have increasingly revealed, many deaths related to pregnancy occur after this time. In fact, the CDC estimates that 33% of maternal deaths occur one week to 12 months after delivery, which is likely underestimated as the CDC assessment did not account for deaths from overdose, suicide, homicide, or unintentional injury.[vii] Accordingly, a number of MMRCs have recommended extending Medicaid coverage for women to a full year postpartum.[viii,ix,x,xi,xii] Already, federal statute requires that a baby born to a mother on Medicaid is covered under Medicaid through the first year of life.

As Congress explores additional ways to improve health outcomes, closing this critical gap in coverage during this incredibly vulnerable time can mean the difference between life and death for some women.

What Can Congress Do: Enact a MOMNIBUS

Thank you for enacting the Preventing Maternal Deaths Act, a critical step in our efforts to eliminate preventable maternal mortality. We urge this Committee and the Congress to build on its commitment to healthy moms and babies, and take important next steps.

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[1] The percent of births financed by Medicaid is higher in certain states. For instance, based on the latest available data, Medicaid financed 58% of births in Alabama (2010) and 54% of births in Georgia (2014). Source: Vernon K. Smith, Kathleen Gifford, Eileen Ellis, and Barbara Edwards, Health Management Associates; and Robin Rudowitz, Elizabeth Hinton, Larisa Antonisse and Allison Valentine, Kaiser Commission on Medicaid and the Uninsured. Implementing Coverage and Payment Initiatives: Results from a 50-State Medicaid Budget Survey for State Fiscal Years 2016 and 2017, The Henry J. Kaiser Family Foundation, October 2016.

As the Committee considers actions to take in the 116th Congress, ACOG urges you to prioritize four key initiatives to accelerate evidence-based patient safety changes:

1. **Support the AIM program**, as included in HR 1897, the MOMMA's Act, sponsored by Representative Robin Kelly (D-IL) and HR 4215, the Excellence in Maternal Health Act, sponsored by Representatives Larry Bucshon, MD (R-IN) and Andre Carson (D-IN). Help achieve AIM's vision to offer every pregnant woman in the US a safe birth by changing the culture of maternity care with authorization of the program.
2. **Support state-based perinatal quality collaboratives**, as included in HR 1551, the Quality Care for Moms and Babies Act, sponsored by Representatives Eliot Engel (D-NY) and Steve Stivers (R-OH), HR 1897, the MOMMA's Act, and HR 4215, the Excellence in Maternal Health Act. Collaboratives bring together local experts to accelerate adoption of best practices, including recommendations of MMRCs and AIM safety protocols. Additional federal investment would help ensure collaboratives have the resources they need to continue to spearhead state and regional quality improvement work.
3. **Support efforts to end racial and ethnic disparities in maternal outcomes**, as included in HR 2902, the Maternal CARE Act, sponsored by Representative Alma Adams (D-NC), HR 1897, the MOMMA's Act, and HR 4215, the Excellence in Maternal Health Act. While ACOG's work continues, we support proposals to establish implicit bias and cultural competency training programs for medical students, residents, and practicing health care professionals.
4. **Extend Medicaid coverage to 12-months postpartum**, as included in HR 1897, the MOMMA's Act and HR 2778, the Healthy MOM Act, sponsored by Representative Bonnie Watson Coleman (D-NJ). Notably, the CDC, in its recent *Vital Signs* report, included extending Medicaid coverage as a strategy to prevent pregnancy-related deaths.[xiii]

We're extremely pleased that so many congressional leaders have recognized and are committed to this important issue, with a number of key bills supporting the initiatives listed above. Packaged together as a "MOMNIBUS," these provisions would have a meaningful impact on women and families and improve maternal health outcomes.

Thank you for the opportunity to share our work with you today. We are making significant and meaningful progress on the path to better maternal outcomes for all moms, and look forward to working together with you to achieve our goal of eliminating preventable maternal mortality.

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[i] Building U.S. Capacity to Review and Prevent Maternal Deaths. (2018). Report from nine maternal mortality review committees. Retrieved from http://reviewtoaction.org/Report_from_Nine_MMRCs

[ii] Lu MC. Reducing Maternal Mortality in the United States. JAMA. Published online September 10, 2018. doi:10.1001/jama.2018.11652

[iii] Petersen EE, Davis NL, Goodman D, et al. Racial/Ethnic Disparities in Pregnancy-Related Deaths — United States, 2007–2016. MMWR Morb Mortal Wkly Rep 2019;68:762–765. DOI: http://dx.doi.org/10.15585/mmwr.mm6835a3

[iv] Building U.S. Capacity to Review and Prevent Maternal Deaths. (2018). Report from nine maternal mortality review committees. Retrieved from http://reviewtoaction.org/Report_from_Nine_MMRCs

[v] Ibid.

[vi] Martin JA, Hamilton BE, Osterman MJK, Driscoll AK, and Drake P. Births: Final Data for 2016. National vital statistics reports; vol 67 no 1. Hyattsville, MD: National Center for Health Statistics. 2018. Retrieved from https://www.cdc.gov/nchs/data/nvsr/nvsr67/nvsr67_01.pdf.

[vii] Petersen EE, Davis NL, Goodman D, et al. Vital Signs: Pregnancy-Related Deaths, United States, 2011–2015, and Strategies for Prevention, 13 States, 2013–2017. MMWR Morb Mortal Wkly Rep 2019;68:423–429. DOI: http://dx.doi.org/10.15585/mmwr.mm6818e1

[viii] Maternal Mortality and Morbidity Task Force and Department of State Health Services Joint Biennial Report, September 2018. Retrieved from https://www.dshs.texas.gov/mch/pdf/MMMTFJointReport2018.pdf.

[ix] Illinois Maternal Morbidity and Mortality Report. Illinois Department of Public Health. (October 2018). Retrieved from http://dph.illinois.gov/sites/default/files/publications/publicationsowhmaternalmorbiditymortalityreport112018.pdf.

[x] Maternal Mortality Report. Georgia Department of Public Health. (2014). Retrieved from https://reviewtoaction.org/sites/default/files/portal_resources/Maternal%20Mortality%20BookletGeorgia.FINAL_.hq_.pdf.

[xi] Perinatal Mortality Review: Maternal Mortality in Utah 2015-2016. Utah Department of Health. (July 2018). Retrieved from https://mihp.utah.gov/wp-content/uploads/PMR-Update-0718.pdf.

[xii] Maternal Mortality Review: A Report on Maternal Deaths in Washington 2014-2015. Washington State Department of Health. (July 2017). Retrieved from https://www.doh.wa.gov/Portals/1/Documents/Pubs/140-154-MMRReport.pdf.

[xiii] Petersen EE, Davis NL, Goodman D, et al. Vital Signs: Pregnancy-Related Deaths, United States, 2011–2015, and Strategies for Prevention, 13 States, 2013–2017. MMWR Morb Mortal Wkly Rep 2019;68:423–429. DOI: http://dx.doi.org/10.15585/mmwr.mm6818e1

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Statement
of the
American Hospital Association
for the
Subcommittee on Health of the Committee on Energy and Commerce
of the
U.S. House of Representatives
"Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care"
September 10, 2019

On behalf of our nearly 5,000 member hospitals, health systems and other health care organizations, our clinician partners – including more than 270,000 affiliated physicians, 2 million nurses and other caregivers – and the 43,000 health care leaders who belong to our professional membership groups, the American Hospital Association (AHA) commends the Committee on Energy and Commerce for its efforts to examine legislation to improve maternal health.

Maternal health is a top priority for the AHA and our member hospitals and health systems, and our initial efforts are aimed at eliminating maternal mortality and severe morbidity. The causes of maternal mortality and morbidity are complex, including a lack of consistent access to comprehensive care and persistent racial disparities in health and health care. As hospitals work to improve health outcomes, we are redoubling our efforts to improve maternal health across the continuum of care and reaching out to community partners to aid in that important effort.

The May 2019 *Vital Signs* report issued by the Centers for Disease Control and Prevention (CDC) noted that about 700 women die each year from complications related to pregnancy, and more than half of those deaths are preventable. An estimated 31% of pregnancy-related deaths occur during pregnancy, 36% during delivery or the week after, and 33% one week to one year after delivery. The CDC last week released its Morbidity and Mortality Weekly Report that showed that between 2007-2016, the pregnancy-related mortality ratio increased from 15 to 17 pregnancy-related deaths per 100,000 births and that black, American Indian and Alaska Native women were two to

three times more likely to die from pregnancy-related causes than white women, and this disparity increases with age. The report also noted that racial and ethnic disparities in pregnancy-related deaths have persisted over time.

AHA Activity on Maternal Health

The AHA has been active in improving maternal health by working to reduce early-elective deliveries, unnecessary caesarian sections, obstetric hemorrhage and preeclampsia, and substance use disorders. We also partner with national organizations to safeguard mothers and babies, both before and after delivery. For example, we are a member of the Alliance for Innovation on Maternal Health (AIM), a national, data-driven maternal safety and quality initiative with proven implementation approaches to improving maternal safety and outcomes.

Within the AHA, our *Better Health for Mothers and Babies* initiative serves as the organizational framework for addressing maternal morbidity and mortality. We recognize that mothers are at risk from the first days of pregnancy through the postpartum period, and know that hospitals and their community partners want to do more to improve their care.

The AHA provides a number of resources to our members, including:

- Evidence-based tools that can be implemented by hospitals of all sizes, such as AIM patient safety bundles, California Maternal Quality Care Collaborative toolkits, the Centers for Medicare & Medicaid Services' (CMS) Maternal Opioid Misuse Model, and recommendations from maternal mortality review committees (MMRCs);
- Information for patients and families about the mental health conditions associated with pregnancy and screening recommendations, as well as initiatives from the March of Dimes and Merck for Mothers, among others; and
- Links to clinical organizations, including the CMS Strong Start for Mothers and Newborns Initiative and the Council on Patient Safety in Women's Health Care.

Recently, we developed an Action Plan and Checklist to help our members meet the goal of eliminating maternal mortality and reducing severe morbidity. They include recommendations for providers and toolkits reflecting best-practices to help hospitals and health systems evaluate and act on their data.

The Action Plan recommends that hospitals:

1. Evaluate and act on data.
2. Examine disparities.
3. Engage mothers and families.
4. Partner with clinicians and stakeholders in their community.

This Action Plan is being implemented in partnership with the AHA Physician Alliance; American Organization for Nursing Leadership; Institute for Diversity and Health Equity; the state, regional and metropolitan hospital associations; and AIM.

We also developed a Discussion Guide to help hospital-based clinicians – working with community-based providers and other stakeholders – improve access to care and reduce health inequities for expectant and new mothers. The guide is designed to facilitate discussion and information-sharing within a hospital or health system's practice and among providers across the continuum, covering prenatal care, labor and delivery, discharge protocols and the postpartum period.

Our most recent advisory to the field shares an interactive Data Visualization and Infographic that highlight racial disparities in maternal health. The Data Visualization allows hospital, health system and state, regional and metropolitan hospital association leaders to examine maternal mortality data, which is stratified by race and time of maternal death (up to 42 days and one year), by U.S., region and state.

In addition to the resources outlined above, the *Better Health for Mothers and Babies* website features podcasts, webinars and case studies focused on the field's ongoing work to improve maternal health.

SUPPORTING CHANGES IN LEGISLATION AND ACCREDITATION

At the federal level, a number of legislative initiatives specific to maternal mortality have been introduced. The AHA supported legislation enacted last year, the Preventing Maternal Deaths Act, which provides funding through the CDC for states and other entities to develop MMRCs. While some states and cities already have established MMRCs, participation by all states will allow for the collection of additional data that will aid in better understanding the causes of maternal mortality and ways to improve treatment. CDC is awarding more than $45 million over five years to support MMRCs through the Enhancing Reviews and Surveillance to Eliminate Maternal Mortality program. This investment will provide about $9 million a year to 24 recipients representing 25 states. We also applaud the establishment of the Black Maternal Health Caucus, whose membership includes several members of this Committee. The Caucus is working to elevate awareness about the alarming rates of maternal morbidity and mortality affecting black women and promote evidence-based policy solutions.

Mothers and Offspring Mortality and Morbidity Awareness (MOMMA's) Act

We support provisions of Rep. Robin Kelly's MOMMA's Act (H.R. 1897), including those that would:

- Improve data collection by establishing federal initiatives to assist states with reporting comprehensive data on maternal mortality and encourage uniformity in reporting and data sharing among states;

- Disseminate best practices to hospitals, professional societies and perinatal collaboratives regarding how to prevent maternal mortality;
- Fund an AIM grant program to promote the widespread adoption of maternal safety bundles at the state level;
- Fund state-based perinatal collaboratives to improve outcomes for pregnant and postpartum women and their infants;
- Extend postpartum coverage for women enrolled in Medicaid and the Children's Health Insurance Program for up to one year, allowing providers to better coordinate services for mothers across the continuum of care;
- Address implicit bias and cultural competency by improving training for health care professionals regarding implicit bias and cultural competence; and
- Extend the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) program for two years postpartum, an increase from the current standard of one year.

Quality Care for Moms and Babies Act

We support efforts to improve maternal and child health through better collection of quality data and implementation of quality collaboratives, as outlined in Rep. Eliot Engel's Quality Care for Moms and Babies Act (H.R. 1551). We would make the following recommendations should the Committee decide to advance this legislation:

- We support the goal of implementing maternity/child health quality measures for Medicaid and the Children's Health Insurance Program, given the importance of these programs in providing coverage for pregnant women and children, but believe the effort should go further. To that end, we would recommend that the Secretary of Health and Human Services be instructed to seek endorsement of the measures from a national voluntary standards setting body and engage other organizations, such as private insurers, in seeking to identify those practices and strategies that lead to better maternal outcomes and track progress as those strategies are deployed nationally;
- Rather than establishing a separate Maternity Consumer Assessment of Health Care Providers and Systems (CAHPS) survey, we would recommend the addition of questions to the Hospital CAHPS survey, starting with a screener question that asks: "Were you hospitalized to give birth?" If the person answers "yes," then they would receive a small number of questions to answer that directly address the issues of providing care to mothers and infants; and
- Regarding the establishment of maternal and child health quality collaboratives, because CMS already employs the National Quality Improvement and Innovation Contract (NQIIC) mechanism, and a set of qualified improvement organizations are identified and ready to operate, using the NQIIC could expedite the establishment of the quality collaboratives envisioned by H.R. 1551. We suggest that the bill appropriate funding to an entity such as the CDC and instruct them to consider working with CMS's established contractors.

Healthy MOMMIES Act

We support provisions of Rep. Ayanna Pressley's Healthy MOMMIES Act (H.R. 2602), including those that would:

- Extend postpartum coverage for women enrolled in Medicaid and the Children's Health Insurance Program for up to one year, allowing providers to better coordinate services for mothers across the continuum of care; and
- Establish a maternal home demonstration program.

Maternal Care Access and Reducing Emergencies (CARE) Act

We support provisions of Rep. Alma Adams' Maternal CARE Act (H.R. 2902), including those that would:

- Establish a grant program to support implicit bias for training health care professionals; and
- Establish a maternal home demonstration program.

The AHA will continue to evaluate maternal health legislation as it is introduced.

Joint Commission

The Joint Commission, which accredits more than 21,000 U.S. health care organizations and programs, including hospitals and health systems, recently adopted standards for perinatal safety. The standards are effective as of July 1, 2020 and hospitals' compliance will be evaluated during accreditation surveys. The AHA supports the Joint Commission's focus on evidence-based procedures and responses that will ensure the most medically appropriate and effective course of treatment for women diagnosed with either maternal hemorrhage or severe hypertension/preeclampsia. In addition, we support the requirement for education of staff, and believe conducting complication-specific training and drills will better prepare providers to act effectively and efficiently when these situations arise. Further, we support standards to provide patients and their families with the necessary educational materials to recognize symptoms that require immediate care as another important safeguard in this process.

CONCLUSION

Thank you for the opportunity to share information regarding hospitals and health systems' efforts to address maternal morbidity and mortality. We look forward to working with partners in the health care field, policymakers – including the Committee on Energy and Commerce – and community organizations to improve outcomes and reduce health inequities for expectant and new mothers, and give their children the best possible start in life.

Statement for Hearing on

"Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care."

Submitted to the
House Energy and Commerce Committee

September 10, 2019

America's Health Insurance Plans (AHIP)[1] thanks the Committee for focusing on the important issue of maternal health. Despite the growing sophistication of the U.S. health care system and the increasing quality of care for women during pregnancy, childbirth, and post-partum, relative to other high-income countries, women in the United States still have the highest rate of maternal mortality. This problem is particularly acute among women of color. Recently, the Centers for Disease Control and Prevention (CDC) released data showing that African-American, Native American, and Alaska native women die of pregnancy-related causes at a rate nearly three times higher than those of white women.[2]

AHIP believes that all Americans deserve high-quality, accessible and affordable maternal, newborn and infant health care. Health insurance providers cover and improve access to maternity care and work hard to identify and address health disparities. An issue brief that AHIP

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[1] AHIP is the national association whose members provide coverage for health care and related services to millions of Americans every day. Through these offerings, we improve and protect the health and financial security of consumers, families, businesses, communities, and the nation. We are committed to market-based solutions and public-private partnerships that improve affordability, value, access, and well-being for consumers.

[2] https://www.cdc.gov/mmwr/volumes/68/wr/mm6835a3.htm?s_cid=mm6835a3_w

released last December outlines many strategies that health insurance providers are pursuing to improve women's health.[3]

We welcome additional opportunities to work with the Committee and other key stakeholders - such as our provider partners state, federal and local governments; community partners; and our employer, government and individual customers - to tackle this important issue.

Women's Health Care Is A Priority for Health Insurance Providers

Health insurance providers cover the full continuum of health care services for women, including expectant mothers. These services encompass prevention (e.g., annual gynecological well woman exams, contraception, Human Papillomavirus (HPV) vaccine) and screening (e.g., mammography, cervical and ovarian cancer screening), prenatal care, maternity and postpartum health, mental health care, and more. Under the requirements of the Affordable Care Act (ACA), maternity and newborn care are covered as part of the Essential Health Benefits (EHB) delivered by all qualified health plans and nearly all plans offered in the group market.

In addition, health insurance providers support recommendations from the U.S. Preventive Services Task Force (USPSTF) and the CDC Advisory Council for Immunization Practices (ACIP) pertaining to pre- and post-natal care. Women, newborns, and infants receive coverage for these services with no cost sharing or co-payments, per the provisions of the ACA.

Beyond these requirements, health plans deliver a wide range of maternity-related care and case management services as outlined throughout our statement and in our Women's Health Issue Brief.

Preventive Care Is the Foundation of Good Health

Improving preventive care for women is a top priority of health insurance providers. When delivered by an in-network provider, health plans cover recommended screenings for women with no cost-sharing. For women who are pregnant or may become pregnant, these services include anemia screening; breastfeeding support and counseling; contraception; folic acid supplements; gestational diabetes screening; gonorrhea screening; Hepatitis B screening; preeclampsia prevention and screening; Rh incompatibility screening; syphilis screening; expanded tobacco intervention counseling; and urinary tract or other infection screening.

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[3] Health Plans' Commitment to Improving Women's Reproductive Health, Issue Brief, November 2018, AHIP https://www.ahip.org/wp-content/uploads/2018/11/IB_WomensHealth-112118-FINAL.pdf

Vaccines are also an essential preventive measure that insurance providers strongly support. To promote adoption of the HPV vaccine, for example, health insurance providers communicate with clinicians to encourage the routine provision of the vaccine and to offer guidance on how they may discuss the importance of the vaccine with children and their parents; incorporate the administration of the vaccine in quality measures on which providers are measured; provide financial incentives to encourage providers to offer the vaccine; and communicate with patients about the safety, efficacy, and purpose of the vaccine, and the importance of completing the vaccine series to ensure full protection.

Despite the presence of coverage and outreach from health plans encouraging members to use preventive services and prescribers to administer these services with no cost sharing, preventive services are still underused. Health insurance providers continuously evaluate their member engagement strategies to improve the use of these preventive services and reduce disparities.

Breaking Down Social Barriers to Good Health

Health insurance providers are committed to ensuring that patients and consumers receive high-quality care during pregnancy, childbirth and after delivery. As part of that commitment, insurance providers are addressing certain social determinants of health that may lead to disparities in care. Research shows that these social factors (the conditions and environment in which people are born, grow, live, work and age) can have a tremendous impact on a person's health. Health insurance providers are increasingly developing and expanding programs to address social barriers to help American families with housing, transportation, food, and educational opportunities as complements to traditional health services.

Successfully addressing social barriers and health care disparities requires cultural competency among our health care institutions. Cultural competency reflects how clinicians, health insurance providers, and other organizations deliver health care services to meet the social, cultural, and linguistic needs of patients. Research shows that racial and ethnic minorities are often disproportionately burdened by chronic illness and disease. Health insurance providers understand that every patient has different needs, and our member companies invest in strategies and programs to reach people where they are to improve their health outcomes.

As a part of these efforts, health insurance providers are increasingly focused on racial disparities in pregnancy and birth outcomes and their implications for maternal health.[4] Our members work collaboratively with doctors and hospitals to deliver culturally competent care, and to use state of the art research and analytics to identify potentially high-risk pregnancies. Early identification and intervention in high-risk pregnancies can improve the mother's care experience, better identify comorbidities during pregnancy, and increase the chances of delivering full-term, healthy babies.

Unfortunately, at-risk expectant women often seek care later in their pregnancies, potentially missing the window for vital prenatal care. Leveraging data and predictive analytics tools, health insurance providers are able to identify high-risk pregnancies early on and connect mothers-to-be with necessary clinical care, education, and social supports.

Health insurance providers are continually developing ways to engage with patients and consumers and encourage them to use maternity care effectively. Often, insurance providers leverage care management services, community health workers, and other care team members to help coordinate care. For example, several of our member health insurance providers use nurse care managers to contact expectant mothers who are experiencing a high-risk pregnancy to provide regular pre-natal coaching. The care team members follow these patients throughout their pregnancy and post-partum checkups and coordinate care with the mother's doctors. These types of approaches can improve maternal and infant outcomes.

These experts also provide support in addressing socioeconomic factors that may impact a woman's pregnancy. Care team members connect expectant mothers with resources, such as access to healthy foods, baby supplies, housing, and even mobile technologies for those who may not have reliable access to communication platforms. For example, one insurance provider launched a program to offer integrated case management, care coordination, and disease management for expectant mothers through the first year of their infants' life. As a result of this program, there has been a statistically significant improvement in delivery outcomes and a decrease in low- and very low-infant birth weights.[5]

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[4] "Weathering" and Age Patterns of Allostatic Load Scores Among Blacks and Whites in the United States, Arline T. Geronimus, ScD, Margaret Hicken, MPH, Danya Keene, MAT, and John Bound, PhD. Am J Public Health. 2006 May; 96(5): 826–833. doi: 10.2105/AJPH.2004.060749

[5] Health Plans' Commitment to Improving Women's Reproductive Health, Issue Brief, November 2018, AHIP https://www.ahip.org/wp-content/uploads/2018/11/IB_WomensHealth-112118-FINAL.pdf

After pregnancy and delivery, health insurance providers strive to find ways to support new moms as well as their newborns and infants. Many health insurance providers offer early childhood support services; nutritional assistance for pregnant women, mothers, and children; and case management services that can help mothers coordinate their care.

Networks Rely on Meeting Clinical Guidelines, Quality Metrics, and Accreditation Standards

To improve the birth outcomes of both mothers and their babies, maternity care must be safe, guided by sound medical evidence, and affordable. To support these goals, health insurance providers require hospitals in their networks to adhere to peer-reviewed medical guidelines for maternity care.

Clinical guidelines and quality metrics for maternal and infant care are set by independent experts, provider professional societies, government, and credentialing/accreditation entities. These include, for example, clinical guidelines promulgated by the American College of Obstetricians and Gynecologists (ACOG) and the American Academy of Pediatrics (AAP), recommended preventive services from the USPSTF, and the Joint Commission's accreditation and certification standards.

To assure that mothers receive the recommended care, health insurance providers rely on quality measures, such as the rates of early elective deliveries, cesarean deliveries, and high-risk deliveries. Early elective deliveries can have serious consequences for the mother and baby. Births delivered via cesarean section have the potential to create additional surgical and health risks to the patient.

As a part of the Core Quality Measures Collaborative (CQMC) established by AHIP and the Centers for Medicare & Medicaid Services (CMS), now run by the National Quality Forum (NQF), health insurance providers, doctors, hospitals and other participants in the maternal and child health continuum collaborated on the development of a set of core measures to guide the collective assessment of the quality of care delivered to mothers and their children.

Engaging Mothers During Pre-Natal and Postpartum Care

Pre-natal care is critically important for a healthy pregnancy, and post-partum care is imperative to the health of both mother and baby. Health insurance providers recognize that early engagement and intervention can improve health outcomes for expectant mothers. Before and

during a pregnancy, a woman is cared for by her doctor, who provides advice on how to ensure a healthy pregnancy. Health insurance providers play an important supporting role by reinforcing the recommendations of the doctor.

In addition, many health insurance providers offer targeted programs to engage and assist women with resources before, during and after pregnancy to improve health and identify possible risks. This may include access to nurse helplines, educational materials, referrals to prenatal classes, connections to support programs (e.g., the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)), wellness resources, health coaching, and breastfeeding support.

Additional high-touch case management services are available if factors are identified that indicate a high-risk pregnancy. In these instances, case managers may take additional steps to more proactively address maternal and infant diseases that may result from high-risk pregnancies. Some health insurance providers also offer incentives and support to women to encourage compliance with recommended prenatal care visits, tobacco cessation, provide transportation assistance, and waive co-pays for prenatal visits, for example.

Many health insurance providers have also launched digital tools and mobile applications to enhance access to education resources, recognizing that smart phones provide an easy and convenient access point for their patients. Often, these tools are based on evidence-based guidance and connected to 24/7 nurse triage lines so that expectant mothers can connect directly with clinicians as questions arise.

A Commitment to Work Together for Healthy Moms and Babies

Every woman deserves access to care that will ensure the good health of both that mother and her baby. Health insurance providers deliver on that commitment by offering access to a full continuum of pre- and post-natal care services. To do this, maternity care needs to be safe, guided by sound medical evidence, and affordable. As an industry, our members are focused on improving birth outcomes and are focused on reducing racial and ethnic disparities in care; we are continuously evaluating our approaches to providing maternal health care and look forward to collaborating with stakeholders moving forward. Together with our provider partners, health insurance providers are working hard to improve health care outcomes for all women and to deliver innovative and culturally competent approaches to improve maternity and infant care.

Thank you for the opportunity to provide these comments. We look forward to working with the Committee and other stakeholders on ways improve the health of moms and babies. Please contact us if you have questions or would like more information.

September 9, 2019

The Honorable Eliot Engel
2426 Rayburn House Office Building
Washington, DC 20515

The Honorable Steve Stivers
2234 Rayburn House Office Building
Washington, DC 20515

Dear Representatives Engel and Stivers,

On behalf of the undersigned organizations dedicated to the health of mothers, infants, and families, thank you for introducing the Quality Care for Moms and Babies Act (H.R. 1551). This legislation represents an essential next step in Congress' effort to address the nation's maternal mortality crisis, which claims the lives of 700 new moms each year. It will also address alarming recent increases in preterm birth, the leading contributor to infant death in the United States.

In late 2018, Congress passed the Preventing Maternal Deaths Act (P.L. 115-344) to support states in establishing and improving maternal mortality review committees (MMRCs). MMRCs are responsible for investigating each instance of maternal death and then making recommendations to prevent future tragedies. However, the recommendations are only meaningful if states take action to implement them.
The Quality Care for Moms and Babies Act would help states translate recommendations into action by supporting new and existing perinatal quality collaboratives. Collaboratives share best practices and lessons learned with each other, but are each operated and controlled at the state and regional level, meaning that solutions and approaches to innovation are locally relevant. By fostering these collaboratives, diverse groups of stakeholders help reduce preventable maternal mortality, severe maternal morbidity, and infant mortality by encouraging local providers through the adoption of best practices, including eliminating elective deliveries before 39 weeks, increasing breastfeeding rates, reducing cesarean sections, and much more. Improved outcomes will mean healthier moms, healthier babies, and cost savings for the entire health care system.

The Quality Care for Moms and Babies Act would also improve the quality of care for pregnant women and infants by directing the Department of Health and Human Services (HHS) to develop a core set of evidence-based perinatal quality measures to be used in Medicaid and the Children's Health Insurance Program (CHIP), improving care for pregnant women and infants enrolled in those programs. Our organizations strongly support the focus your bill brings to perinatal quality issues and care delivery. While HHS currently has a core set of quality measures for adults and a separate one for children, there is a great need for a single, recognized core set for pregnant women and their babies. Quality care and better data will lead to improved health outcomes, which in turn will reduce health expenditures for patients, the states, and the federal government.

Thank you again for your leadership and commitment to improving the care delivered to moms and babies. We look forward to working with you to pass this important legislation.

Sincerely,
American College of Nurse-Midwives
American College of Obstetricians and Gynecologists
Association of Maternal & Child Health Programs
Lamaze International
March for Moms
March of Dimes
National Partnership for Women & Families
Society for Maternal-Fetal Medicine

PREMIER TRANSFORMING HEALTHCARE TOGETHER®

Statement for the Record
Submitted by
The Premier Inc. healthcare alliance
"Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care"
House Energy and Commerce Subcommittee on Health
September 10, 2019

The Premier healthcare alliance appreciates the opportunity to submit a statement for the record on the House Energy and Commerce Subcommittee on Health hearing titled *"Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care"* held on September 10, 2019. We applaud the leadership of Chairman Pallone and Chairwoman Eshoo, Ranking Members Walden and Burgess and members of the Subcommittee for holding this hearing to examine legislative solutions to address the factors contributing to maternal mortality.

Premier is a leading healthcare improvement company, uniting an alliance of more than 4,000 U.S. hospitals and health systems and approximately 175,000 other providers and organizations to transform healthcare. With integrated data and analytics, data-driven collaboratives, supply chain solutions, consulting and other services, Premier enables better care and outcomes at a lower cost.

Every new mother and child deserves the best beginning possible, whether they live in the suburbs, cities or in a rural setting. ***Getting at the root cause and raising the performance bar on maternal health for the nation is why Premier has launched the Bundle of Joy™ campaign.*** The goal for the *Bundle of Joy* campaign is to ensure mothers and babies are always at the center of care and supported by the latest evidence, the best doctors and the most successful practices. By mobilizing an alliance of 4,000+ hospitals and health systems, 100 billion data points, the expertise of our industry partners and history of proven best practices, Premier aims to build and deploy new care delivery models, ultimately scaling proven advancements across the industry.

As part of the Bundle of Joy campaign, Premier released a report on inpatient maternal mortality and morbidity based on a nationally representative sample with 25 percent of U.S. births from 2008 - 2018. The report found a 24 percent decline in deaths during in-hospital deliveries in this timeframe across 900+ hospitals. Additionally, we found that the mortality disparity gap between whites and all other races substantially narrowed, and specifically found that delivery-related deaths for black mothers decreased by 80 percent over the 10-year period.

The analysis also identified a 36 percent increase in severe maternal morbidity (SMM) rates, including a 79 percent higher SMM rate for black women than white women. SMM, as measured by the CDC, includes unexpected outcomes of labor and delivery that result in significant short- or long-term health effects, including eclampsia, cardiac arrest and sepsis. The increase in SMM rates are affected by several factors, such as changes in coding, age, race, payer, type of delivery, substance misuse, region and hospital type. Further research is needed to understand the drivers and implications of these factors on SMM rates.

Taking the Premier analysis in conjunction with the report released last week by the Centers for Disease Control and Prevention (CDC), "Racial/Ethnic Disparities in Pregnancy-Related Deaths," suggests that steps need to be taken to better integrate care delivery between the hospital and pre-

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and post-care services for mothers and their newborns, as well as to better manage high-risk patients. The CDC has found that black, American Indian and Alaska Native women are more than 2.5 times as likely to die from pregnancy-related causes than white women, that maternal mortality is on an overall upward trend and that many of these deaths are preventable.

Premier's analysis complements the CDC's findings because it examines one site of care within the larger birth-related mortality findings. While the CDC data pertains to all pregnancy-related deaths, Premier's analysis highlights inpatient-related maternal mortality, at the time of delivery. The Premier analysis included standardized inpatient data from 8.9 million births (approximately 25 percent of births nationally) that occurred in 903 hospitals across 45 states between 2008-2018.

To be clear, if the disparity gap is narrowing for in-hospital delivery-related mortality, but widening overall, that means we need to focus beyond the hospital to the care mothers are receiving pre- and post-delivery. This is why it is imperative that mothers get to the hospital for urgent care of pregnancy-related complications and to safely deliver their babies. We believe this also underscores ***the need for new payment models and a focus on incentivizing integrated care across ambulatory and inpatient settings.***

Premier's full report, ***"Bundle of Joy™ Maternal & Infant Health Trends"*** is attached.

Premier will be conducting additional analysis on our ***extensive data on maternal death rates and maternal health trends.*** We look forward to continuing to share these data and findings with the Subcommittee to help develop evidence-based policy solutions to improve the quality, safety and cost of care for mothers and infants.

In closing, the Premier healthcare alliance appreciates the opportunity to submit a statement for the record on the House Energy and Commerce Subcommittee on Health hearing on maternal health. Premier is available as a resource and looks forward to working with Congress as it considers policy options to address this very important issue.

If you have any questions regarding our comments or need more information, please contact Blair Childs at blair_childs@premierinc.com or 202-879-8000.

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Statement

For the Record

Of

Gauss Surgical, Inc.

to the

U.S. House of Representatives
Committee on Energy and Commerce
Subcommittee on Health

Re: "Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care."

September 10, 2019

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Statement

For the Record

Of

Gauss Surgical, Inc.

to the

U.S. House of Representatives
Committee on Energy and Commerce
Subcommittee on Health

Re: "Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care."

September 10, 2019

Gauss Surgical appreciates the opportunity to provide testimony to the U.S. House of Representatives Committee on Energy and Commerce for the hearing on "Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care" and to offer our perspective on the important issue of reducing pregnancy-related morbidity and mortality.

We believe that the Federal Government should strongly explore and consider supporting the adoption of adjunct technologies to improve perinatal safety. In this statement, we highlight a proven Artificial Intelligence (AI) enabled mobile technology solution that is playing a meaningful role in improving detection and treatment of Postpartum Hemorrhage, the leading preventable cause of maternal mortality in the United States.

Hemorrhage is the Leading Preventable Cause of Maternal Mortality in the United States

The United States has the highest maternal mortality rate in the developed world.[1] According to the Centers for Disease Control and Prevention, 60% of pregnancy-related deaths are preventable.[2] Postpartum hemorrhage is a leading cause of preventable maternal morbidity and mortality.[3] To address this problem, organizations such as the American College of Obstetrics and Gynecology and the California Maternal Quality Care Collaborative recommend use of standardized hemorrhage management protocols to facilitate appropriate care of patients suffering from postpartum bleeding.[4,5]

On August 21, 2019, The Joint Commission, the body that accredits approximately 77% of hospitals in the United States, announced a perinatal safety guideline[6] that requires accredited

hospitals to "develop written, evidence-based procedures for stage-based management of pregnant and postpartum patients who experience maternal hemorrhage" incorporating "the use of an evidence-based tool that includes an algorithm for identification and treatment of hemorrhage" This new standard will go into effect July 1, 2020.

Ineffective Blood Loss Monitoring Hinders Hemorrhage Management

Widely accepted clinical protocols for hemorrhage detection and response rely on the ongoing, quantitative evaluation of cumulative blood loss as the lynchpin for triggering interventions to manage bleeding at predetermined levels or "stages" of blood loss.[7]

However, traditional approaches to assessing blood loss, such as visual estimation and manual weighing of blood-soaked sponges, are known to be unreliably subjective, inaccurate, labor-intensive, and confounded by the presence of fluids other than blood (e.g., irrigation, amniotic fluid).[8-11] These difficulties have severely limited providers' ability to recognize and respond to hemorrhage in a timely manner. [12]

As Laura Ungar reported in a July 2018 USA TODAY investigation[13],

> *"In July, a USA TODAY investigation revealed that thousands of women in the U.S. suffer life-changing injuries or die during childbirth because hospitals, doctors and nurses ignore basic best practices known to head off disaster.* ***Experts say half of those women's lives could be saved if doctors and nurses took simple steps, including measuring blood loss during and after delivery*** *and giving timely treatment for high blood pressure."*

Artificial Intelligence (AI) Enabled Technology Can Significantly Improve Hemorrhage Recognition and Response

Gauss Surgical, Inc., a leading healthcare Artificial Intelligence (AI) company based in Menlo Park, California, has developed an actionable solution that leverages cost-effective mobile technology and recent advances in AI to accurately estimate blood loss during both vaginal and cesarean deliveries. The company's Triton technology is a mobile application for the iPad that enables providers to assess blood loss in a way that is objective, accurate, and available in real-time during or after a delivery. The Triton App is FDA cleared as a Class II medical device, and is currently used by leading U.S. hospitals performing approximately 250,000 deliveries per year.

The Triton mobile application uses computer vision and machine learning algorithms to accurately estimate blood loss from digital images of blood-soaked sponges captured by the iPad as part of the routine sponge counting process. Similarly, the mobile application captures and processes images of the suction canister using sophisticated algorithms. As each new sponge or canister is scanned, the cumulative blood loss for the patient is displayed, providing doctors and nurses with clear insight into a critical aspect of the patient's condition. The technology seamlessly integrates into the busy workflow of a delivery room, operating room, or patient care unit.

Clinical Evidence Suggests Substantial Improvement in Hemorrhage Recognition and Response with the use of Technology

Several clinical studies have documented the accuracy[14,15,16] of the Triton mobile application as well as its ability to improve hemorrhage recognition, affect transfusion decision-making, and appropriately implement hemorrhage response protocols during both cesarean and vaginal deliveries.[17,18]

Earlier this year, researchers at Mount Sinai Hospital in New York published an independent 7,600-patient study in *The International Journal of Obstetric Anesthesia* comparing Triton with visual estimation of blood loss. The use of Triton to support implementation of a stage-based hemorrhage protocol was associated with (i) a nearly four-fold improvement in hemorrhage recognition, (ii) a 34% reduction in delayed interventions to control bleeding in vaginal deliveries, (iii) a reduced transfusion dose in cesarean deliveries, and (iv) significant cost savings yielding a 152% return on investment to the hospital.[18]

Triton provides additional benefits; each hospital's Hemorrhage Protocol can be loaded into the mobile application to alert the care team to hemorrhage stages in real time. This makes it significantly easier for providers to rapidly and correctly implement the proper treatments to improve outcomes, by placing evidence-based protocols at their fingertips based on objective data on the patient's blood loss.

Quantification of Blood Loss with Technology Should be a Required Standard of Care in US Hospitals

Leading maternal health organizations have recommended use of stage-based hemorrhage protocols, and the use of objective, cumulative, quantitative blood loss. However, most hospitals and providers lack accurate, objective data needed to detect and respond to hemorrhage in time to improve maternal health outcomes.

Given that user-friendly and cost-effective mobile medical technology is now available to simplify, streamline, and objectively provide accurate and timely blood loss information, we believe that quantification of blood loss (QBL) should be a required standard of care in US hospitals for every delivery. The Federal Government should also strongly consider supporting the adoption of technology for quantifying blood loss and digital hemorrhage protocols through Medicaid reimbursement incentives and through grant programs to under-resourced hospitals.

Conclusion

Gauss Surgical sincerely thanks the Committee for this hearing and for your commitment to addressing the problem of maternal morbidity and mortality. We deeply support your efforts and welcome the opportunity to work with the Committee and Congress to draft legislation to improve maternal outcomes.

Respectfully yours,

Robert L. Thurer, MD

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PremierInc.com/MaternalHealthTrends

Bundle of Joy™
Maternal & Infant Health Trends

About the Bundle of Joy™ Campaign

In April 2019, Premier® launched the ***Bundle of Joy* campaign** to test and scale measurable improvement in the quality, safety and cost of care for mothers and babies in the United States. The campaign builds on Premier alliance's long-standing commitment to providing safe care to help ensure healthy mothers and babies across its network of more than 4,000 hospitals, provider collaboratives and partnerships with employers and other industry organizations.

Bundle of Joy is organized to tackle issues that data prove continue to be associated with maternal and infant healthcare. With data from 45 percent of all U.S. hospital discharges, Premier can analyze standardized data to gain meaningful insights for providers and the industry. This data includes more than 1.2 million annual hospital births, as of 2018. These research and analytic capabilities provide a source of truth that enables stakeholders across the industry to identify, target and monitor critical quality and safety improvement opportunities.

Premier provides the following resources for healthcare organizations to join its campaign to improve maternal and infant health. To learn more, please contact us by visiting the ***Bundle of Joy*** website.

- **Data-driven Insights:** The maternal and infant health trends analysis leverages the Premier Healthcare Database and is used to help hospitals and the nation better understand and target solutions to this national problem. Premier's analytic capabilities and data assets are used to study specific therapeutic interventions and assess clinical efficacy over time to implement new solutions for unmet medical needs. This is the first of several analyses on maternal and infant health trends.
- **Maternal & Infant Outcomes Dashboard:** The industry's only integrated analytics dashboard enables a comprehensive analysis of an organization's select perinatal and neonatal data sets, including peer-level and regional benchmarks and individualized reports assessing quality and outcomes. Premier continues to develop innovative analytics solutions to enable hospitals and health systems to benchmark and assess performance against its comprehensive maternal and infant database.
- **Performance Improvement Services:** Premier provides one-to-one consulting support as well as collaborative initiatives to advance and scale national efforts to improve maternal and infant health. In July 2019, Premier announced it is working with 10 leading hospitals on a Perinatal Collaborative designed to reach zero preventable maternal and neonatal harm and deaths. Learnings from the collaborative will be shared nationally. In January 2020, the QUEST® quality improvement collaborative will launch a new perinatal specialty network to further test and adopt evidence-based strategies to improve care and the overall experience for women, infants and their families.
- **New Payment Models and Policy:** Premier is working with private and public organizations to test and scale new payment models and reforms to improve maternal healthcare.

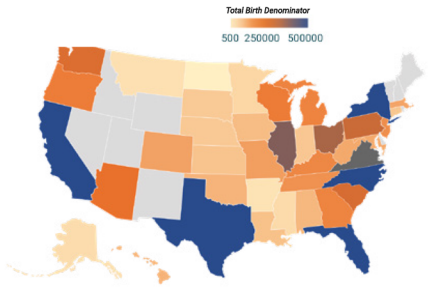
Premier Maternal & Infant Analysis: Key Findings

In July 2019, Premier conducted a national trend analysis to explore maternal and infant health outcomes in the hospital, at the time of delivery. The analysis leveraged the nationally representative Premier Healthcare Database and included standardized inpatient data from 8.9 million births that occurred in 903 hospitals across 45 states between 2008-2018. The data in the Premier analysis represent approximately 25 percent of all U.S. in-hospital births and were comparable in patient and hospital demographics to the data used by the Centers for Disease Control and Prevention (CDC) in its *Vital Signs* report on pregnancy-related deaths.

Comprised of nearly 20 years of de-identified inpatient data, Premier's best-in-class database is more current and standardized than the CDC's data. Therefore, Premier data can help provide policymakers and clinicians with additional insights into hospital performance on maternal health. This is Premier's first analysis of maternal and infant mortality and morbidity, with additional analyses forthcoming.

Patient demographics and clinical outcomes were measured using the CDC's methodology for severe maternal morbidity (SMM), which includes the birth admission definition as the denominator and the numerator, as well as additional standardized national methodologies. Note that as hospitals switched from ICD-9 to ICD-10 mid-way through 2015, changes in documentation and coding may have affected year 2015 trending in comparison with previous years.

Figure 1: *Total Inpatient Birth Volume by State*

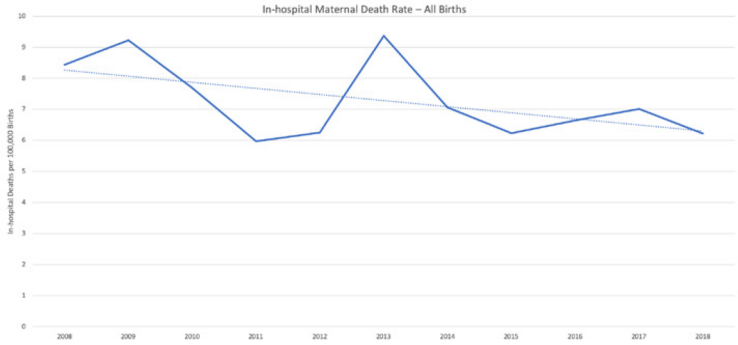


U.S. hospitals are demonstrating a dramatic decrease in delivery-related maternal deaths

Overall, Premier found that U.S. hospitals showed a 24 percent decrease in delivery-related maternal deaths between 2008-2018 (Figure 2).

This trend suggests that progress is being made in the hospital at the time of delivery. However, the analysis did not explore maternal deaths occurring outside of delivery in the hospital or preventability of these deaths. Additional occurrences of maternal mortality across the continuum of pregnancy will be explored in a later analysis.

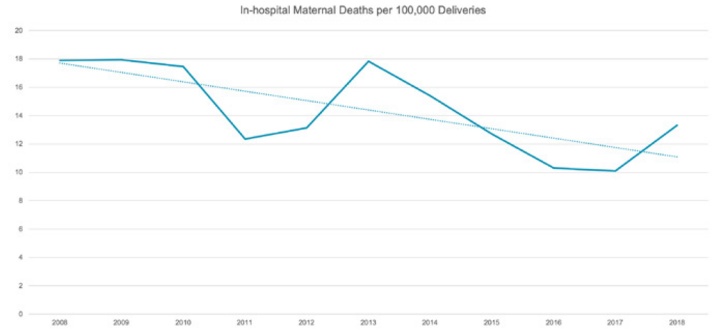
Figure 2: : In-Hospital, Delivery-Related Death Rate Trend



Premier worked closely with the CDC to ensure the methodology used in this analysis was aligned with and complemented their data. However, there are several differences and details in Premier's findings compared to the CDC. For instance, Premier's analysis shows a reduction in delivery-rated maternal mortality rates within the hospital. This is because Premier's data is more current, going through 2018 while the CDC's most recent mortality trends end in 2015. Premier's analysis was also conducted using standardized inpatient data, which allows for greater specificity when exploring trends happening within the hospital, at the time of delivery. These insights, however, are based only on inpatient stays. In comparison, the CDC uses mortality data from the National Vital Statistics System, death certificates from each state and the Pregnancy Mortality Surveillance System. The CDC defines a pregnancy-related death as the death of a woman during pregnancy or within one year of the end of pregnancy from a pregnancy complication, a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiologic effects of pregnancy.

While Premier's analysis was limited to delivery-related hospitalizations and the CDC tracks maternal death outside of the hospital, the CDC has stated that "errors in reported pregnancy status on death certificates have been described, potentially leading to overestimation of the number of pregnancy-related deaths." Premier's in-hospital measure provides a more consistent assessment of facility performance.

Figure 3: : Inpatient Maternal Death Rate for Cesarean Delivery



When comparing women who had a cesarean versus a vaginal delivery, Premier identified a slight increase in delivery-related maternal mortalities for vaginal deliveries (Figures 3 & 4).

Figure 4: Inpatient Maternal Death Rate for Vaginal Delivery

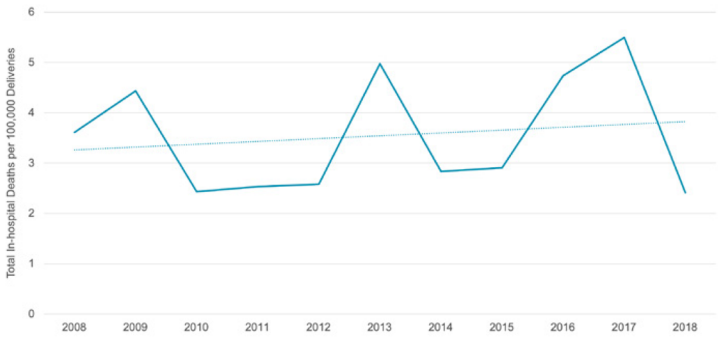
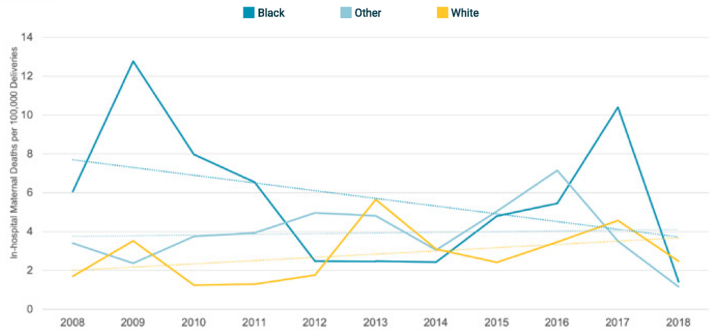
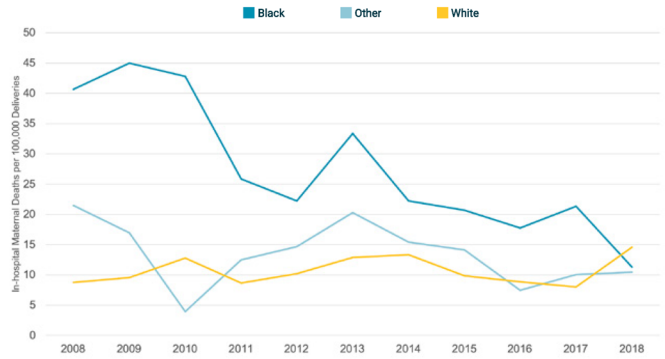


Figure 5: Inpatient Maternal Death Rate After/During Vaginal Delivery by Race



Notably, the disparity gap between black women and all other races for inpatient delivery-related deaths has substantially declined. Premier identified an 80 percent decrease in maternal mortality for black women between 2008-2018 (Figures 5 & 6).

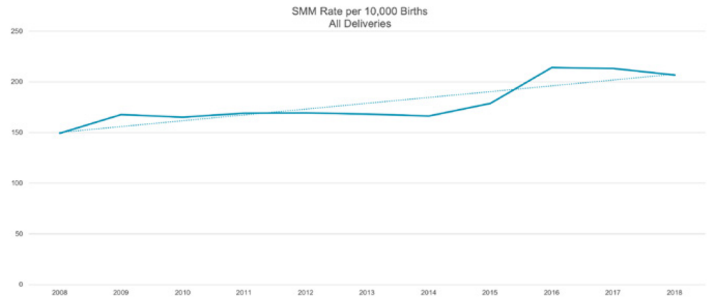
Figure 6: Inpatient Maternal Death Rate for Cesarean Delivery by Race



Severe maternal morbidity has increased

While inpatient maternal mortality has decreased, the analysis showed an increase of 36 percent in severe maternal morbidity (SMM) between 2008-2018, and a 14 percent increase from 2015 through the end of 2018 (Figure 7). SMM includes unexpected outcomes of labor and delivery that result in significant short-or long-term health effects, including eclampsia, cardiac arrest and sepsis.

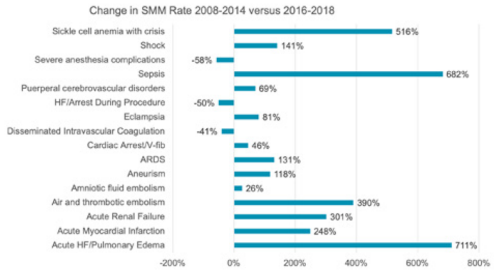
Figure 7: Overall SMM Rate



The increase in SMM rates could be due to several factors outlined below, including changes in coding, age, race, payer, type of delivery, substance use, region, hospital type and other factors.

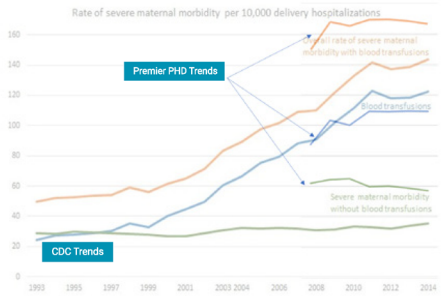
As illustrated in Figure 8, the change from ICD-9 to ICD-10 may have affected the accuracy of SMM rates in year 2015. In other words, part of the increase may be attributable to coding and documentation changes. However, the Premier analysis showed a higher SMM rate than what was reported by the CDC for the same time period. This suggests that there may have been an increase in SMM rates regardless of the transition to ICD-10.

Figure 8: SMM Rate Change: ICD-9 versus ICD-10



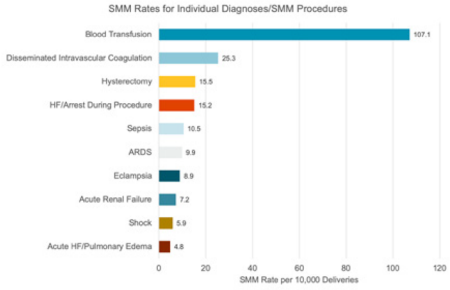
Viewing by year, SMM rates increased by 14 percent between 2008-2012, then remained flat or even slightly decreased in 2013 and 2014. As illustrated in Figure 9, these findings are closely aligned with the CDC's findings over this same time period. However, the CDC's SMM data is only available through 2014. In contrast, Premier's analysis shows a slightly higher rate post ICD-10 implementation (2015) than what was observed by the CDC. Of note is the large increase in SMM rate in 2016 (19 percent) and the decrease in SMM rate (3 percent) in 2018.

Figure 9: Overall SMM Rate Comparison to CDC Data



Overall, blood transfusions, disseminated intravascular coagulation, hysterectomy, heart failure and sepsis were the top factors associated in patients who experienced a SMM as defined by the CDC (Figure 10). Blood transfusion incidence in this analysis is 34 percent higher compared to all other conditions and complications that constitute SMM. It is well recognized that blood transfusions are associated with women who have a higher risk of SMM and mortality. Transfusions are often used as a lifesaving measure in obstetrical hemorrhaging patients and other critical events. The clinical conditions triggering these transfusions and direct relationship to clinical outcomes have not been well described and provide an opportunity for further study.

Figure 10: Top 10 Diagnoses and Procedures Associated with SMM

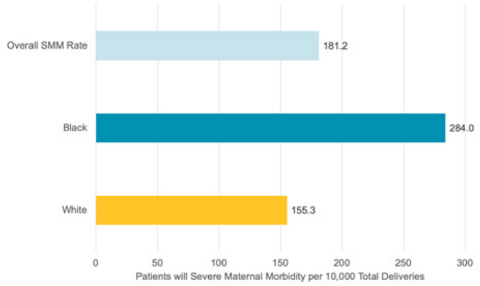


Premier's analysis also identified the proportion of maternal complications attributable to various direct causes of SMM, which include cardiovascular conditions (21.3 percent), obstetric hemorrhage (24.6 percent), hypertensive disorders (11.4 percent), sepsis (6.4 percent), stroke (2.1 percent) and embolism (4.5 percent). Further study to determine indirect causes, such as preexisting conditions, maternal mental health and substance use, will be conducted in later Premier analysis.

The race disparity gap remains open for SMM

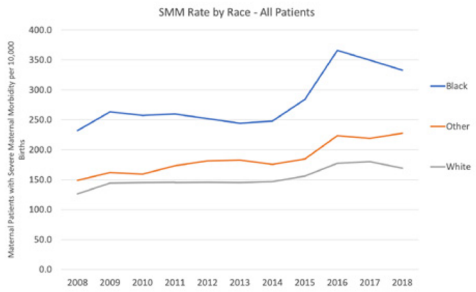
Black women had a 79 percent higher SMM rate than white women (Figure 11). Specifically, black women had higher SMM rates for heart failure, acute respiratory distress syndrome, eclampsia, acute renal failure and sepsis. Black women also have a 94 percent higher rate of blood transfusions than white women.

Figure 11: Overall SMM Rate by Maternal Race



Disparities among black women compared to all other populations is evident. More research is needed to understand the specific attributes affecting the variation in hospital performance and SMM rates associated with these disparities.

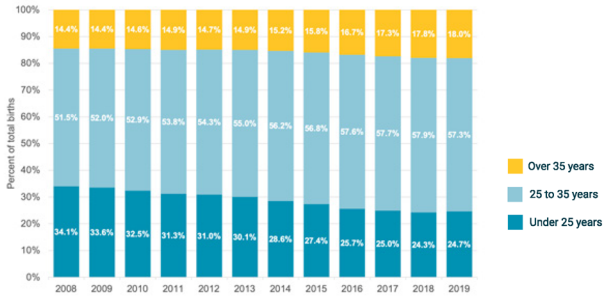
Figure 12: Overall SMM Rate by Maternal Race



The maternal population is aging

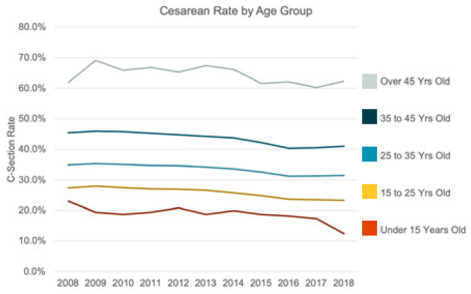
Another consistent trend in the analysis is the aging of the U.S. maternal population. The percent of women giving birth who are older than 35 years of age increased by 24 percent and by 12 percent for mothers 25-35. Women giving birth under the age of 25 decreased by 29 percent (Figure 13).

Figure 13: Overall Inpatient Maternal Age Distribution



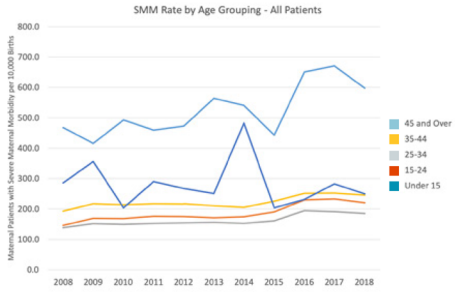
Mothers older than 35 tend to have a higher rate of cesarean sections as illustrated in Figure 14. Cesarean deliveries, which can increase the risk of complications, are 41 percent more common for women older than 35 as compared to women younger than 35.

Figure 14: Cesarean Deliveries by Age Group



Overall, the SMM rate for patients aged 35 and older is 32 percent higher than those younger than 35. Although mothers older than 45 years demonstrate the highest risk for SMM, women between the ages of 15 – 24 experienced the greatest increases in SMM rates with a 51 percent increase, followed by those 25 – 34 at 35 percent, and a 28 percent increase for mothers ages 35 – 44. Those under the age of 15 demonstrated a 13 percent decrease in SMM (Figure 15).

Figure 15: Overall SMM Rate by Maternal Age Group



Premier's analysis confirmed that SMM rates for cesareans are higher than for vaginal deliveries. However, SMM rates for vaginal deliveries have increased by 67 percent since 2015 (Figure 16). Note that much of this increase could be attributed to coding changes. The actual SMM rate decreased in 2017 and 2018 over 2016, after three full years of ICD-10.

Figure 16: Overall Cesarean Rate Trend

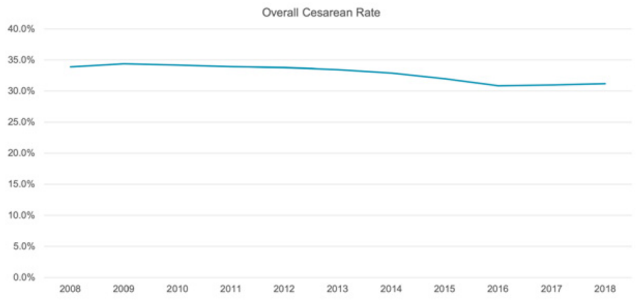
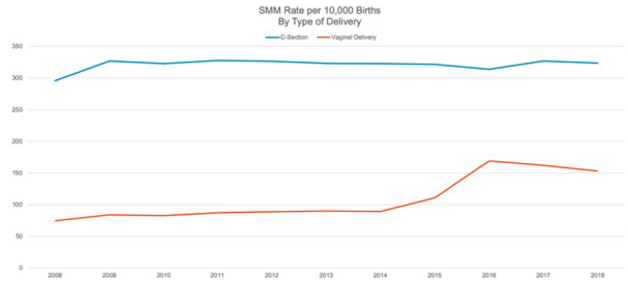


Figure 17: Overall SMM Rate by Type of Delivery

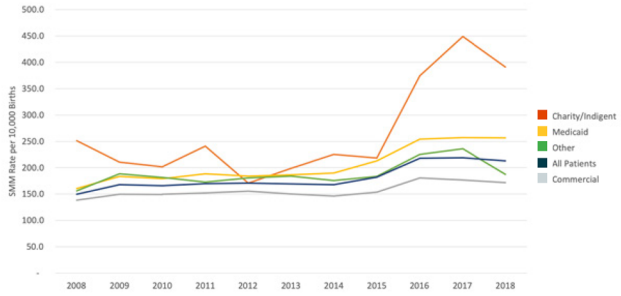


Due to the differences between Premier's and the CDC's findings for SMM trends, additional analyses and research are needed to identify how coding changes may contribute to the SMM trend. For example, the changes in coding may demonstrate an enhanced capability to identify complications and SMM at a greater level of accuracy, thus enabling a better understanding of preventable harm and complications associated with pregnancy.

Patients with commercial insurance have the lowest SMM rates

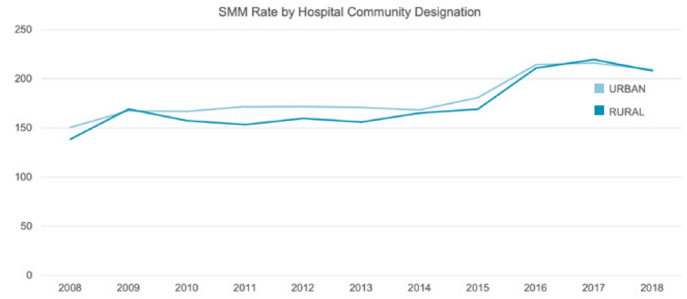
Women with commercial insurance had the lowest SMM rates. Mothers with charity/indigent coverage had the highest SMM rates – a 71 percent higher SMM rate than commercial insurance carriers. Mothers with Medicaid had the second highest SMM rate – 32 percent higher than commercial carriers (Figure 18). In Premier's analysis, 42 percent of women were covered by Medicaid and 50 percent by commercial insurance. The remaining 8 percent were covered through charity, indigent or other payment sources.

Figure 18: Overall SMM Rate by Type of Payer



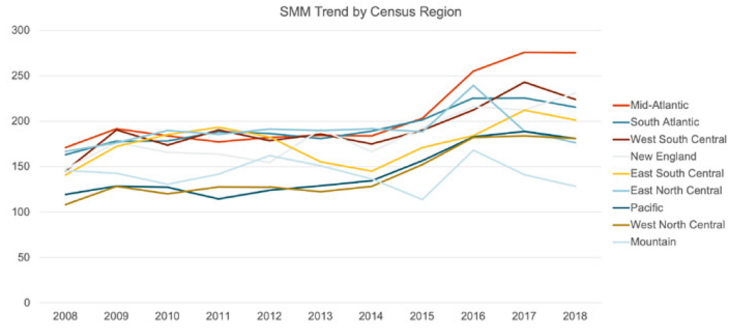
Comparing rural to urban hospitals, SMM rates remained relatively the same, with a 50 percent increase for rural and 39 percent increase for urban hospitals from 2008 – 2018 (Figure 19).

Figure 19: SMM Rates for Rural VS Urban Hospitals



Comparing SMM rate by census region, hospitals in the Mid-Atlantic region had the highest SMM rates over the past four years. Hospitals in the Mountain region had the lowest rates over the past four years (Figure 20).

Figure 20: SMM Rates by Census Region

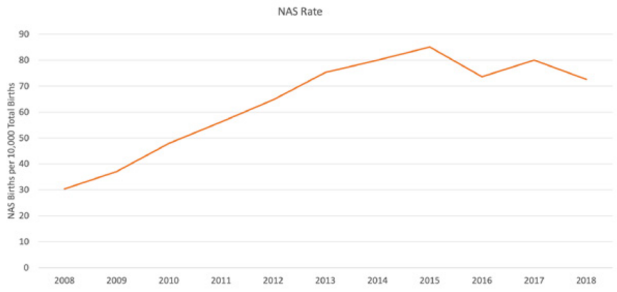


There are several other factors that could have influenced the increase in SMM rates. Premier plans to perform follow-up analyses to identify the key drivers, as well as how age, race, payer, type of delivery, region, hospital type, substance use and other key factors may be influencing SMM rates.

Maternal Substance Use and Neonatal Abstinence Syndrome

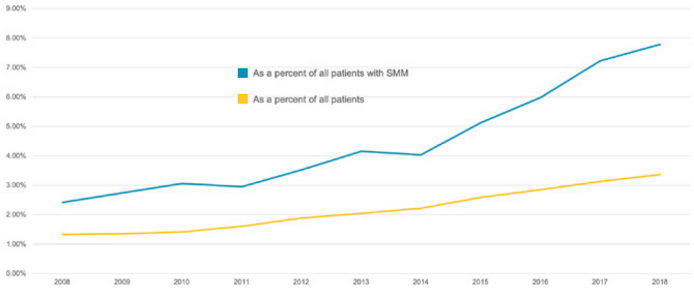
Alarmingly, the rate of infants born with neonatal abstinence syndrome (NAS) has increased by 140 percent since 2008 (Figure 21).

Figure 21: Rate of Babies born with Neonatal Abstinence Syndrome in the Hospital



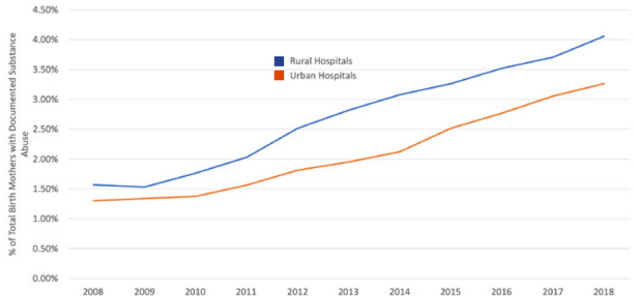
The increasing rate of NAS aligned closely with an increased trend for birth mothers with documented substance use, which has increased by 153 percent since 2008 overall. Additionally, these mothers are 221 percent more likely to experience a SMM (Figure 22).

Figure 22: Inpatient Birth Mothers with Documented Substance Use



When comparing rural to urban hospitals, rural hospitals had a 34 percent higher rate of maternal patients with substance misuse (Figure 23).

Figure 23: Rate of Substance Use by Hospital Location



Conclusions

In the United States, we have a limited understanding of why women are dying, or nearly dying, during pregnancy and childbirth. Unfortunately, state departments of health have limited sources of consistent, detailed data required to conduct accurate population-level analyses of maternal and infant health outcomes.

Premier's analysis showed that hospitals are making progress in reducing maternal deaths. It also showed that the disparity gap has been narrowed for maternal mortality among black women at the time of delivery, in the hospital setting. However, SMM rates have increased, likely a result of multifactorial causes that will require additional detailed analyses. This will include deeper study of the migration to ICD-10 and how that change affected the calculation of quality measures. The disparity gap for SMM remains wide when comparing black women to all other races. Additionally, the maternal population is aging and demonstrating a higher rate of cesarean sections and complications. Caesarean delivery rates are decreasing, although they continue to have higher associated SMM rates than vaginal deliveries.

Substance misuse remains a serious public health concern, and has been linked to harmful maternal and infant outcomes. Premier's analysis demonstrates substantial increases in substance use among women who are pregnant, and subsequently an alarming increase in the number of babies born with NAS. The analysis confirmed SMM is significantly higher among women with substance use disorders.

There are several factors that occur outside of the hospital during pre- and post-natal care that could be influencing overall maternal mortality and morbidity trends identified in Premier's analysis. The U.S. healthcare system continues to be fragmented in the way it cares for pregnant women, new mothers and infants. A more integrated approach to the care expectant and new mothers receive before, during and after delivery is needed in order to improve overall maternal and infant health in the United States.

Comprised of nearly 20 years of de-identified inpatient data, Premier's database is best-in-class and provides focused insights and are more specific than what has been reported by the CDC. Premier will continue to leverage the scale and depth of its database, which offers healthcare providers, patients, policymakers and industry organizations authoritative guidance on improving the quality, safety and efficiency of care delivered across the continuum.

Soleil Irving "just lights up a room when she smiles," Wanda Irving, her grandmother, says. (Sheila Pree Bright for ProPublica)

LOST MOTHERS

Nothing Protects Black Women From Dying in Pregnancy and Childbirth

Not education. Not income. Not even being an expert on racial disparities in health care.

by Nina Martin, ProPublica, and Renee Montagne, NPR News, Dec. 7, 2017, 8 a.m. EST

This story was co-published with NPR.

On a melancholy Saturday this past February, Shalon Irving's "village" — the friends and family she had assembled to support her as a single mother — gathered at a funeral home in a prosperous black neighborhood in southwest Atlanta to say goodbye and send her home. The afternoon light was gray but bright, flooding through tall arched windows and pouring past white columns, illuminating the flag that covered her casket. Sprays of callas and roses dotted the room like giant corsages, flanking photos from happier times: Shalon in a slinky maternity dress, sprawled across her couch with her puppy; Shalon, sleepy-eyed and cradling the tiny head of her newborn

uniform of the Commissioned Corps of the U.S. Public Health Service, where she had been a lieutenant commander. Many of the mourners were similarly attired. Shalon's father, Samuel, surveyed the rows of somber faces from the

institution in the U.S. There she had focused on trying to understand how structural inequality, trauma and violence made people sick. "She wanted to expose how peoples' limited health options were leading to poor health outcomes. To kind of uncover and undo the victim blaming that sometimes happens where it's like, 'Poor people don't care about their health,'" said Rashid Njai, her mentor at the agency. Her Twitter bio declared: "I see inequity wherever it exists, call it by name, and work to eliminate it."

Much of Shalon's research had focused on how childhood experiences affect health over a lifetime. Her discovery in mid-2016 that she was pregnant with her first child had been unexpected and thrilling.

Then the unthinkable had happened. Three weeks after giving birth, Shalon had collapsed and died.

The sadness in the chapel was crushing. Shalon's long-divorced parents had already buried both their sons; she had been their last remaining child. Wanda Irving had been especially close to her daughter —role model, traveling companion, emotional touchstone. She sat in the front row in a black suit and veiled hat, her face a portrait of unfathomable grief. Sometimes she held Soleil, fussing with her pink blanket. Sometimes Samuel held her, or one of Shalon's friends.

A few of Shalon's villagers rose to pay tribute; others sat quietly, poring through their funeral programs. Daniel Sellers, Shalon's cousin from Ohio and the baby's godfather, spoke for all of them when he promised Wanda that she would not have to raise her only grandchild alone. "People say to me, 'She won't know her mother.' That's not true," Sellers said. "Her mother is in each and every one of you, each and every one of us. ... This child is a gift to us. When you remember this child, you remember the love that God has pushed down through her for all of us. Soleil is our gift."

Underneath the numb despair was a profound sense of failure — and an acute understanding of what Shalon's death represented. The researcher working to eradicate disparities in health access and outcomes had become a symbol of one of the most troublesome health disparities facing black women in the U.S. today, disproportionately high rates of maternal mortality. The main federal agency seeking to understand why so many American women — especially black women — die and nearly die from complications of pregnancy and childbirth had lost one of its own. Even Shalon's many advantages — her B.A. in sociology, her two master's degrees and dual-subject Ph.D., her gold-plated insurance and rock-solid support system —

Shalon's coffin and held it aloft. Then they folded it into a precise triangle small enough for Wanda and Samuel to hold next to their hearts.

Shalon MauRene Irving was a lieutenant commander in the uniformed ranks of the U.S. Public Health Service. (Courtesy of Wanda Irving)

In recent years, as high rates of maternal mortality in the U.S. have alarmed researchers, one statistic has been especially concerning. According to the CDC, black mothers in the U.S. die at three to four times the rate of white mothers, one of the widest of all racial disparities in women's health. Put another way, a black woman is 22 percent more likely to die from heart disease than a white woman, 71 percent more likely to perish from cervical cancer, but 243 percent more likely to die from pregnancy- or childbirth-related causes. In a national study of five medical complications that are common causes of maternal death and injury, black women were two to three times more likely to die than white women who had the same condition.

That imbalance has persisted for decades, and in some places, it continues to grow. In New York City, for example, black mothers are 12 times more likely to die than white mothers, according to the most recent data; from 2001 to 2005, their risk of death was seven times higher. Researchers say that widening gap reflects a dramatic improvement for white women but not for blacks.

The disproportionate toll on African Americans is the main reason the U.S. maternal mortality rate is so much higher than that of other affluent countries. Black expectant and new mothers in the U.S. die at about the same rate as women in countries such as Mexico and Uzbekistan, the World Health Organization estimates.

What's more, even relatively well-off black women like Shalon Irving die or nearly die at higher rates than whites. Again, New York City offers a startling example: A 2016 analysis of five years of data found that black college-

higher risk highlights how profound the inequities really are, said Raegan McDonald-Mosley, the chief medical officer for Planned Parenthood Federation of America, who met her in graduate school at Johns Hopkins University and was one of her closest friends. "It tells you that you can't educate your way out of this problem. You can't health-care-access your way out of this problem. There's something inherently wrong with the system that's not valuing the lives of black women equally to white women."

For much of American history, these types of disparities were largely blamed on blacks' supposed innate susceptibility to illness — their "mass of imperfections," as one doctor wrote in 1903 — and their own behavior. But now many social scientists and medical researchers agree, the problem isn't race but racism.

The systemic problems start with the type of social inequities that Shalon studied — differential access to healthy food and clean drinking water, safe neighborhoods and good schools, decent jobs and reliable transportation. Black women are more likely to be uninsured outside of pregnancy, when Medicaid kicks in, and thus more likely to start prenatal care later and to lose coverage in the postpartum period. They are more likely to have chronic conditions such as obesity, diabetes, and hypertension that make having a baby more dangerous. The hospitals where they give birth are often the products of historical segregation, lower in quality than those where white mothers deliver, with significantly higher rates of life-threatening complications.

Looking over Shalon's medical records, her friend Raegan McDonald-Mosley saw many missed opportunities "at multiple parts of the health care system." (Ariel Zambelich for ProPublica)

Those problems are amplified by unconscious biases that are embedded throughout the medical system, affecting quality of care in stark and subtle ways. In the more than 200 stories of African-American mothers that ProPublica and NPR have collected over the past year, the feeling of being devalued and disrespected by medical providers was a constant theme. The young Florida mother-to-be whose breathing problems were blamed on obesity when in fact her lungs were filling with fluid and her heart was failing. The Arizona mother whose anesthesiologist assumed she smoked marijuana because of the way she did her hair. The Chicago-area businesswoman with a high-risk pregnancy who was so upset at her doctor's attitude that she changed OB-GYNs in her seventh month, only to suffer a fatal postpartum stroke.

Over and over, black women told of medical providers who equated being African American with being poor, uneducated, noncompliant and unworthy. "Sometimes you just know in your bones when someone feels contempt for you based on your race," said one Brooklyn woman who took to bringing her white husband or in-laws to every prenatal visit.

Hakima Tafunzi Payne, a mother of nine in Kansas City, Missouri, who used to be a labor-and-delivery nurse and still attends births as a student midwife, has seen this cultural divide as both patient and caregiver. "The nursing culture is white, middle-class, and female, so is largely built around that identity. Anything that doesn't fit that identity is suspect," she said. Payne, who is also a nurse educator lecturing on unconscious bias for professional organizations, recalled "the conversations that took place behind the nurse's station that just made assumptions — a lot of victim blaming, 'If those people would only do blah, blah, blah, things would be different.'"

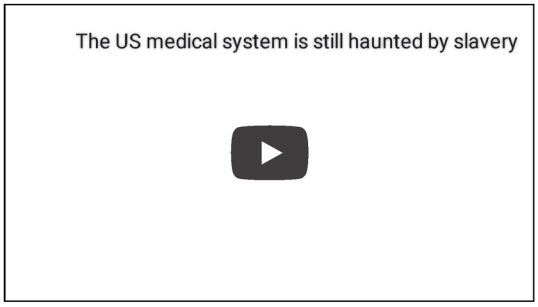
Lives Matters movement who has become an activist to improve black maternal care, had an emergency C-section in Los Angeles in March 2016, the surgeon "never explained what he was doing to me," she said. The pain medication didn't work: "My mother basically had to scream at the doctors to give me the proper pain meds." When white people advocate for themselves or their family members, she said, providers "think they're acting reasonably. When black people are advocating for our family members, we're complaining, we're being uppity, we don't know what we're talking about, we're exaggerating."

Limited diversity in the medical profession contributes to the black mothers' sense of alienation. Blacks make up 6 percent of doctors (though 11 percent of OB-GYNs), 3 percent of medical school faculty and less than 2 percent of National Institutes of Health-funded principal investigators. "That's a real problem that across the spectrum that [black women] are not feeling listened to and respected—that's a structural problem," said Monica McLemore, a nursing professor at the University of California, San Francisco, who has conducted focus groups with dozens of mothers as part of a $50 million initiative to reduce preterm births. "The health sector doesn't want to admit how much of this is about us."

But it's the discrimination that black women experience in the rest of their lives — the double-whammy of race and gender — that may ultimately be the most significant factor in poor maternal outcomes. An expanding field of research shows that the stress of being a black woman in American society can take a significant physical toll during pregnancy and childbirth.

Watch the Video

The U.S. medical system is still haunted by slavery.



It's a type of stress from which education and class provide no protection. "When you interview these doctors and lawyers and business executives, when you interview African-American college graduates, it's not like their lives have been a walk in the park," said Michael Lu, a longtime disparities researcher and former head of the Maternal and Child Health Bureau of the Health Resources and Services Administration, the main federal agency funding programs for mothers and infants. "It's the experience of having to work harder than anybody else just to get equal pay and equal respect. It's being followed around when you're shopping at a nice store, or being stopped by the police when you're driving in a nice neighborhood."

Arline Geronimus, a professor at the University of Michigan School of Public Health, coined the term "weathering" for how this continuous stress wears away at the body. Weathering "causes a lot of different health vulnerabilities and increases susceptibility to infection," she said, "but also early onset of chronic diseases, in particular, hypertension and diabetes" — conditions that disproportionately affect blacks at much younger ages than whites. It accelerates aging at the cellular level; in a 2010 study, Geronimus and colleagues found that the telomeres (chromosomal markers of aging) of black women in their 40s and 50s appeared 7 1/2 years older on average than those of whites.

Weathering can have particularly serious repercussions in pregnancy and childbirth, the most physiologically complex time in a woman's life. Stress has been linked to one of the most common and consequential pregnancy complications, preterm birth. Black women are 49 percent more likely than whites to deliver prematurely (and, closely related, black infants are twice as likely as white babies to die before their first birthday). Here again, income and education aren't protective.

The effects on the mother's health may also be far-reaching. Maternal age is an important risk factor for many severe pregnancy-related complications, as well as for chronic diseases that can affect pregnancy, like hypertension. "As women get older, birth outcomes get worse," Lu said. "If that happens in the 40s for white women, it actually starts to happen for African-American women in their 30s."

This means that for black women, the risks for pregnancy likely start at an earlier age than many clinicians — and women— realize, and the effects on their bodies may be much greater than for white women. This doesn't mean that pregnancy should be thought of as inherently scary or dangerous for black women (or anyone). It does mean, in Geronimus' view, that "a black

or hospitals that are doing it [accounting for the higher risk of black women], but ... there's not much of that going on," Lu said. Should doctors and clinicians be taking into consideration this added layer of vulnerability?

"Yeah," Lu said. "I truly think they should."

Shalon Irving's history is almost a textbook example of the kinds of strains and stresses that make high-achieving black women vulnerable. The child of two Dartmouth graduates, she grew up in Portland, Oregon, where her father's father was pastor of a black church. Even in its current liberal incarnation, Portland is one of the whitest large cities in the U.S.

Shalon, her baby brother Simone and her older brother Sam III, in a photo taken in the mid-1980s (Courtesy of Wanda Irving)

Thirty years ago, Portland was a much more uncomfortable place to be black. African-American life there was often characterized by social isolation, which Geronimus' research suggests can be especially stressful. Samuel Irving spent years working as a railroad engineer; he got a law degree and later ran a city agency, but felt his prospects were still constrained by his race. Wanda held various jobs in marketing and communications, including at the U.S. Forest Service. In elementary school, Shalon was sometimes the only African-American kid in her class. "There were many mornings where she would stand outside banging on the door wanting to come back into the house because she didn't want to go to school," her mother recently recalled.

Shalon's strategy for fitting in was to be smarter than everyone else. She read voraciously, wrote a column for a black-owned weekly newspaper and skipped a grade. Books and writing helped her cope with trauma and sorrow — first the death of her 20-month-old brother Simone in a car accident when she was six, then the fracturing of her parents' marriage, then the diagnosis of her beloved older brother, Sam III, with a virulent form of early-onset multiple sclerosis when he was 17. Amid all the family troubles, Shalon was funny and driven, with a fierce sense of loyalty and "a moral compass that was amazing," her mother said. She was also overweight and often anxious, given to daydreaming (as she later put it) about "alternative realities where people hadn't died and things had not been lost." When it came time to go

mother, her aunts, her far-flung cousins — died in their 30s and 40s. Her brother, Sam III, sardonically joked that the family had a "death gene," but Shalon didn't think that was funny. "She didn't understand why there was such a disparity with other families that had all these long lives," Wanda said. Shalon nagged her father to stop smoking and her mother to lose weight. She set an example, shedding nearly 100 pounds while managing to graduate summa cum laude. At the start of graduate school at Purdue University, she was a svelte 138 pounds, "very classy and elegant, a lot like her mom," said Bianca Pryor, a master's student in consumer behavior who became one of what Shalon called her cherished circle of "sister friends."

They were all bearing the same burden. "There's this feeling that we're carrying the expectations of generations, the first ones trying to climb the corporate ladder, trying to climb in academe," said Pryor, now a marketing executive in New York City. "There is this idea that we have to work twice as hard as everyone else. But there's also, 'I'm first-generation, I don't know the ropes, I don't how to use my social capital.' There's a bit of shame in that … this constant checking in with yourself — am I doing this right?"

Shalon set the bar especially high: She was pursuing a double Ph.D. in sociology and gerontology, focusing on themes she would return to often — the long-term effects of early childhood trauma and maltreatment, the impact of the parent-child relationship on lifelong health. She finished in under five years, once again with top honors — "one of the best writers I've had in my academic career," her adviser, sociologist Kenneth Ferraro, said.

She tried teaching, then decided to pursue a second master's degree, this time from Johns Hopkins. She was also juggling family responsibilities. Wanda had followed Shalon around the country, earning her own master's degree and working in nonprofit management. "They were like the 'Gilmore Girls,'" Pryor said. In 2008, Sam III joined them in Baltimore to take part in a study on an experimental MS therapy. With his family's support, he'd managed to finish college and run a poetry-slam nonprofit for kids. His next goal was to walk across the stage to receive his diploma instead of using his wheelchair. In February 2009, while he was doing physical rehab to regain strength in his legs, a blood clot traveled to his lung, killing him at the age of 32. Afterward, Wanda and Shalon clung to each other more tightly than ever.

In 2011 came what Ferraro called Shalon's "change-the-world opportunity" — a consulting gig at the CDC with Michelle Obama's "Let's Move!" initiative. Soon she joined the agency's prestigious Epidemic Intelligence Service, a training program in applied epidemiology — in her case, with a focus on community health — whose members served as first responders in health

Wanda and Shalon were so close, "they were like the 'Gilmore Girls,'" one friend said. (Courtesy of Wanda Irving)

than $183,000 for Hopkins alone — travel, buy a house. "The permanence was very appealing," Pryor said.

What Shalon wasn't prepared for was how unfulfilled she was. After Johns Hopkins, she had worked on the frontlines helping at-risk infants, teenage girls and mothers with HIV/AIDS. She was passionate about improving food and housing security to reduce people's risk for high blood pressure and other cardiovascular problems, but felt like much of her CDC research ended up sitting on a shelf. It bothered her that she rarely met the people behind the data she was analyzing. "She might see the numbers, but I don't think she actually saw that little girl or little boy have a healthier lunch," Pryor said.

The stress and frustration triggered the old corrosive self-doubts. But gradually, Shalon saw a way out of the box. She joined the CDC's Division of Violence Prevention, refocusing on issues around trauma and domestic abuse— a mission she saw as "liberating" for African-American women, Wanda said. She started a coaching business called Inclusivity Standard to advise young people from disadvantaged backgrounds who wanted to get into college or grad school, as well as organizations seeking to become more diverse. She enlisted her mother, now working as a consultant, and Pryor to join her team. And she decided to write a self-help book, on the theory that many people in the communities she cared about couldn't afford psychotherapy or didn't trust it. "She was one of those people — one thing is just not enough," said her coauthor Habiba Tran, a therapist and life coach with a multicultural clientele. "One modality is just not enough. One way of [reaching people] is just not enough."

Shalon couldn't remember a time when she didn't want to be a mother. But her romantic life had been a "20-year dating debacle," she admitted in the manuscript of her self-help book, in part because "I am deathly scared of heartbreak and disappointment, and letting people in comes with the very real risk of both."

In 2014, when Shalon was 34, medical problems forced the issue. For years she'd been suffering from uterine fibroids — non-malignant tumors that

"No words have been created to adequately capture the fear and love and excitement that I feel right now," Shalon, shown here with her puppy Lady Day, wrote to her daughter. (Courtesy of Wanda Irving)

affect up to 80 percent of black women, leading to heavy menstrual bleeding, anemia and pelvic pain. No one knows what causes fibroids or why blacks are so susceptible. What is known is that the tumors can interfere with fertility — indeed, black women are nearly twice as likely to have infertility problems as whites, and when they undergo treatment, there's much less likelihood that the treatments will succeed. Surgery bought her a little time, but her OB-GYN urged her not to delay getting pregnant much longer.

Shalon had spent her adult years defying stereotypes about black women; now she wrestled with the reality that by embracing single motherhood, she could become one. The financial risk was substantial — she'd just purchased a town house in the quiet Sandy Springs area north of Atlanta, and her CDC insurance only covered artificial insemination for wives using their husbands' sperm. In Portland, no one would have blinked an eye at an unmarried professional woman having a child on her own, but in Atlanta, "there is very much a vibe there that things should happen in a certain order," Pryor said. "And Shalon was not having that at all. She was like, 'Nope, this is what it is.'"

The gamble — funded with her parents' help — ended in a series of devastating failures. In September 2015, in the midst of one unsuccessful insemination treatment, Shalon was alarmed to discover that her right arm had become swollen and hard. Doctors found a blood clot and diagnosed her with Factor V Leiden, a genetic mutation that makes blood prone to abnormal clumping. Suddenly a part of the family's medical mystery was solved. Wanda's mother had died of a pulmonary embolism, so had Sam III, so had other members of their extended family. But no one had been tested

her way to Puerto Rico to help with the CDC'S Zika response, working to prevent the spread of the virus to expectant mothers and their unborn babies. There she discovered she'd gotten pregnant by accident. Her excitement was tempered by fear that the baby might have contracted Zika, which can cause microcephaly and other birth defects. But a barrage of medical tests confirmed all was well.

More good news: A few weeks later Pryor learned she was pregnant, too. "All right," she told Shalon, "let's finally go after our rainbows and unicorns! Because for so long it was just dark clouds and rain."

A worried Bianca Pryor quizzed her best friend from grad school: "Are you getting out of the house? Are you going for your walks?" (Melissa Bunni Elian for ProPublica)

In reality, Shalon's many risk factors — including her clotting disorder, her fibroid surgery, the 36 years of wear and tear on her telomeres, her weight — boded a challenging nine months. She also had a history of high blood pressure, though it was now under control without medication. "If I was the doctor taking care of her, I'd be like, 'Oh, this is going to be a tough one,'" her OB-GYN friend Raegan McDonald-Mosley said.

Shalon got though the physical challenges surprisingly well. Her team at Emory University, one of the premier health systems in the South, had no trouble managing her clotting disorder with the blood thinner Lovenox. They worried that scarring from the fibroid surgery could result in a rupture if her uterus stretched too much, so they scheduled a C-section at 37 weeks. At several points, Shalon's blood pressure did spike, Wanda said, but doctors

were worries about money and panic attacks about the difficulties of being a black single mother in the South in the era of Trayvon Martin and Tamir Rice. Shalon told everyone she was hoping for a girl.

Steeped in research about how social support could buffer against stress and adversity, Shalon joined online groups for single moms and assembled a stalwart community she could quickly deploy for help. "She was all about the village," Rashid Njai said. "She'd say, 'I'm making sure that when I have my baby, the village is activated and ready to go.'"

She poured more of her anxious energy into finishing the first draft of the book. She sent Tran the manuscript on Jan. 2, the day before the planned C-section, then typed one last note to her child. Boy or girl, its nickname would be Sunny, in honor of her brother Sam, her "sunshine."

"You will always be my most important accomplishment," she wrote. "No words have been created to adequately capture the fear and love and excitement that I feel right now."

Until recently, much of the discussion about maternal mortality has focused on pregnancy and childbirth. But according to the most recent CDC data, more than half of maternal deaths occur in the postpartum period, and one-third happen seven or more days after delivery. For American women in general, postpartum care can be dangerously inadequate — often no more than a single appointment four to six weeks after going home. "If you've had a cesarean delivery, if you've had preeclampsia, if you've had gestational diabetes or diabetes, if you go home on an anticoagulant — all those women need to be seen significantly sooner than six weeks," said Haywood Brown, a professor at Duke University medical school. Brown has made reforming postpartum care one of his main initiatives as president of the American Congress of Obstetricians and Gynecologists.

The dangers of sporadic postpartum care may be particularly great for black mothers. African Americans have higher rates of C-section and are more than twice as likely to be readmitted to the hospital in the month following the surgery. They have disproportionate rates of preeclampsia and peripartum cardiomyopathy (a type of heart failure), two leading killers in the days and weeks after delivery. They're twice as likely as white women to have postpartum depression, which contributes to poor outcomes, but they are much less likely to receive mental health treatment. If they experience discrimination or disrespect during pregnancy or childbirth, they may be

their doctor visit.

Meanwhile, many providers wrongly assume that the risks end when the baby is born — and that women who came through pregnancy and delivery without problems will stay healthy. In the case of black women, providers may not understand their true biological risks or evaluate those risks in a big-picture way. "The maternal experience isn't over right at delivery. All of the due diligence that gets applied during the prenatal period needs to continue into the postpartum period," said Eleni Tsigas, executive director of the Preeclampsia Foundation.

It's not just doctors and nurses who need to think differently. Like a lot of expectant mothers, Shalon had an elaborate plan for how she wanted to give birth, even including what she wanted her surgical team to talk about (nothing political) and who would announce the baby's gender (her mother, not a doctor or nurse). But like most pregnant women, she didn't have a postpartum care plan for herself. "It was just trusting in the system that things were gonna go okay," Wanda said. "And that if something came up, she'd be able to handle it."

The birth was "a beautiful time," Wanda said. Shalon did so well that she convinced her doctor to let her and Soleil — French for "sun" — leave the hospital after two nights (three or four nights are more typical). Then at home, "things got real," Pryor said. "It was Shalon and her mom trying to figure things out, and the late nights, and trying to get baby on schedule. Shalon was very honest. She told me, 'Friend, this is hard.'"

When Pryor found she was pregnant, too, with her son Everton, she told Shalon, "Let's finally go after our rainbows and unicorns!" (Melissa Bunni Elian for ProPublica)

C-sections have much higher complication rates than vaginal births. In Shalon's case, the trouble — a painful lump on her incision — emerged a few days after she went home. The first doctor she saw, on Jan. 12, said it was nothing, but as she and her mother were leaving his office, they ran into her longtime OB-GYN, Elizabeth Collins. Collins took a look and diagnosed a hematoma — blood trapped in layers of healing skin, something that happens in about 1 percent of C-sections. The OB-GYN drained the "fluctuant mass" (as her notes described it), and "copious bloody non-purulent material" poured out from the one-inch incision. Collins also arranged for a visiting nurse to come by the house every other day to change the dressing. Collins didn't respond to a request for comment.

Over the next two weeks, Shalon's records show three more visits to Emory and two nursing visits at home. She feared that the incision wasn't healing fast enough, perhaps because the blood thinners she was taking to prevent an embolism —another C-section risk — were hampering coagulation. But a wound specialist said everything looked OK. Shalon was worried about Soleil, too: Breastfeeding was harder than expected, and she'd stopped taking narcotic painkillers because she thought they were making the baby groggy. But less powerful painkillers weren't working; between the pain and the anxiety, she was hardly sleeping. "Patient has poor endurance," the visiting nurse noted on Jan. 16. "Leaving the home is a TAXING and CONSIDERABLE effort."

What troubled the nurse most, though, was Shalon's blood pressure. On Jan. 16 it was 158/100, high enough to raise concerns about postpartum preeclampsia, which can lead to seizures and stroke. But Shalon didn't have other symptoms, such as headache or blurred vision. She made an appointment to see the OB-GYN for the next day, then ended up being too

preventing her from "sleeping/relaxing." Overall, Shalon told the nurse, "it just doesn't feel right." When the nurse measured her blood pressure on the cuff Shalon kept at home, the reading was 158/112. On the nurse's equipment, the reading was 174/118.

"We provide caring and compassionate care to all of our patients," the Visiting Nurse Health System said in an email. "She was in our care for less than four days but we gave the very best care we could."

Under current ACOG guidelines, blood pressure readings that high should trigger more aggressive action, such as an immediate trip to the doctor for further evaluation, possibly medication and more careful monitoring. A history of hypertension and multiple other risks should raise more red flags, Tsigas said. "We need to look holistically at the risk factors irrespective of whether or not she had a diagnosis of preeclampsia," she said. "If somebody has a whole plateful of risk factors, how are you treating them differently?" High blood pressure in the postpartum period should always be considered an emergency, she said.

"It would have made sense to admit her to the hospital for a complete work-up, including chest xray, an echocardiogram to evaluate for heart failure, and titration of her medication (both pain meds and hypertension meds) to sort out what she needed to feel OK and get [her] blood pressure out of the severe range," wrote one doctor, a leading expert on postpartum care, who agreed to look at Shalon's records at ProPublica's request, but asked not to be identified. "Education on signs / symptoms of stroke seems insufficient — we don't want to wait until someone is having a stroke to get their BP treated. A next-day follow-up for a BP of 174/118 seems questionable for a postpartum woman. Same-day assessment in her provider's office, or in the ER, would have been very much within the bounds of common practice."

Instead, Shalon was given an appointment for the following day, Jan. 19, with an OB-GYN at Women's Center at Emory St. Joseph's, which handled her primary care. By then, Shalon's blood pressure had fallen, and there were "no symptoms concerning for postpartum [preeclampsia]," the doctor wrote in his notes. He wrote that Shalon was healing "appropriately" and thought her jumps in blood pressure were likely related to "poor pain control." Wanda and Shalon left feeling more frustrated than ever.

At home over the next couple of days, Wanda noticed that one of Shalon's legs was larger than the other. "She said, 'Yeah, I know, Mom, and my knee hurts, I can't bend it."

"She had all these risk factors. If you're gonna pick someone who's going to have a problem, it's gonna be her. ... She needs to be treated with caution." The fact that her symptoms defied easy categorization was all the more reason to be vigilant, McDonald-Mosley said. "There were all these opportunities to identify that something was going wrong. To act on them sooner and they were missed. At multiple levels. At multiple parts of the health care system. They were missed."

Shalon's other friends were growing uneasy, too. Back in New York, Bianca Pryor had her own pregnancy emergency — her son was born very prematurely, at 24 weeks — so she couldn't be in Atlanta. But she and Shalon talked often by phone. "She knew so much about her body one would think she was an M.D. and not a Ph.D. To hear her be concerned about her legs — that worried me." Pryor encouraged her, "'Friend, are you getting out of the house? Are you going for your walks? She told me, 'No, I'm on my chaise lounge, and that's about as much as I can do.'"

Habiba Tran was so upset at Shalon's condition that she took her frustrations out on her friend. "I was cussing her out. 'Go to the f— ing doctor.' She's like, 'I called them. I talked to them. I went to see them. Get off my back.'"

Shalon took this selfie with her dad, Samuel, and her newborn daughter on the morning of Jan. 24, 2017. Twelve hours later, she collapsed. (Courtesy of Wanda Irving)

On the morning of Tuesday, Jan. 24, Shalon took a selfie with her father, who'd been visiting for a week, then sent him to the airport to catch a flight back to Portland. Towards noon, she and Wanda and the baby drove to the Emory Women's Center one more time. This time, Shalon saw a nurse practitioner. "We said, 'Look, there's something wrong here, she's not feeling well,'" Wanda recalled. "'One leg is larger than the other, she's still gaining weight'— nine pounds in 10 days — 'the blood pressure is still up, there's gotta be something wrong."

The nurse's records confirmed Shalon had swelling in both legs, with more swelling in the right one. She noted that Shalon had complained of "some

ordered an ultrasound to check the legs for blood clots, as well as preeclampsia screening.

Both tests came back negative. As Wanda remembers it, Shalon was insistent: "There *is* something wrong, I know my body. I don't feel well, my legs are swollen, I'm gaining weight. I'm not voiding. I'm drinking a lot of water, but I'm retaining the water." Before sending Shalon home, the nurse gave her a prescription for the blood pressure medication nifedipine, which is often used to treat pregnancy-related hypertension.

Emory Healthcare "is dedicated to the highest quality patient care," it said in an email. It declined to answer questions about Shalon's care, citing patient confidentiality.

Shalon and Wanda stopped at the pharmacy, then decided to go out to dinner with the baby. While they ate, they talked about a trip Shalon had planned for the three of them to take in just a few weeks. Ever since Sam III had died, Wanda and Shalon made a point of traveling someplace special on painful anniversaries. To mark his 40th birthday and the eighth anniversary of his death, Shalon had gotten the idea of going to Dubai. ("It's cheap," Shalon had told Wanda. "The money is worth so much more there. It's supposed to be beautiful.") She had long ago purchased their tickets and ordered the baby's passport. Now Wanda was worried — would she be feeling well enough to make such a big trip with an infant? Shalon wasn't willing to give up hope just yet. Wanda recalls her saying, "I'll be fine, I'll be fine."

They got home and sat in Shalon's bedroom for a while, laughing and playing with the baby. Around 8:30 p.m., Shalon suddenly declared, "I just don't know, Mom, I just don't feel well." She took one of the blood pressure pills. An hour later, while she and Wanda were chatting, Shalon clutched her heart, gasped and passed out.

Paramedics arrived to find Shalon on the floor near the foot of her bed "pulseless and not breathing…" They tried to stabilize her, then rushed her to Atlanta's Northside Hospital, just a couple of miles from her home. In the emergency room, doctors discovered that the breathing tube had been "incorrectly placed," according to the ambulance service report — into her esophagus instead of her lungs. She never regained consciousness. Four days later, on Jan. 28, Wanda and Samuel withdrew life support and she died.

The news spread quickly among her colleagues at the CDC. William Callaghan, chief of the maternal and infant health branch, recalled in March that his boss, who had visited Shalon at the hospital, called to let him know. "It was a chilling phone call," said Callaghan, one of the nation's leading

Northside declined to do an autopsy, telling Wanda and Samuel that none was required, they recalled. (The hospital declined to comment.) So Wanda paid $4,500 for an autopsy by the medical examiners in neighboring DeKalb County. The report came back three months later. Noting that Shalon's heart showed signs of damage consistent with hypertension, it attributed her death to complications of high blood pressure.

Wanda always knew she would be spending a lot of time caring for her granddaughter. She and Shalon loved the idea of the three of them making their way in the world together, trying to change it for the better.

The flag that covered Shalon's casket is now in a memorial case with other mementos and photos (Sheila Pree Bright for ProPublica)

Instead, Wanda has had to find a way to go on without her daughter and best friend. She took a break from her consultant work and moved into Shalon's cozy townhouse, now crowded with baby books and gear, to assume her new role. Soleil was colicky, prone to gastric problems that kept both of them up all night. Shalon's villagers stopped by often to help, but much of the time Wanda was on her own. Her grief was most acute at nights, but she couldn't let it interfere with her duties to Soleil.

Eventually the colic went away and Soleil thrived. In June, Wanda and her five-month-old granddaughter went to Chattanooga for the annual meeting of U.S. Public Health Service scientists. A new honor — the Shalon Irving

suppressed tears. “It is a commitment. … It’s a struggle to become the person you want to be. It’s harder than you want. It takes longer than you want. And it takes more out of you than you expected it should.”

Shalon personified excellence, Wanda said. “I don’t know if Shalon became the woman that she ultimately wanted to be. But I do know that she wanted to be the woman she was.”

She also knew how Shalon wanted to raise her daughter, and she was determined to do the same: reading to her, traveling with her, taking her to gymnastic and music classes. “She wanted Soleil to go to Montessori school, so I’m looking for a Montessori school for her,” Wanda said. “She wanted her to be christened, we got her christened.” Wanda and Soleil have developed a routine: Every morning they say hello to the photos of Shalon on the living room walls. Every evening they say goodnight. Sometimes Wanda shows Soleil the flag from her mother’s casket, now encased in a wooden frame. She set aside other mementos for later — the academic writings, the certificates and awards, the manuscript of her book with Tran. If all goes according to plan, it will be published early next year.

One Saturday afternoon in October, Wanda received another book, this one compiled by Shalon’s friends from the Epidemic Intelligence Service and entitled “Letters to Soleil.” She put the baby on her lap and said, “I’m gonna read you some letters about your mom.” One thing Wanda has tried never to do is cry in front of Soleil. But as she began reading aloud, she was sobbing. “And Soleil just kept looking at me — she couldn’t understand what was going on. And about a minute later she took my glasses off with her hands and put them down and then laid her head right on my chest and started patting me. Which made me cry all the more.”

Wanda in the living room of the town house she shares with Soleil. A photo of Shalon is in the background. (Sheila Pree Bright for ProPublica)

Shalon was a letter-writer too. One day not long after the funeral, Wanda found a note that her daughter had written to her two years earlier, around the sixth anniversary of Sam III's death. Shalon had left it among the other important items in her computer, trusting that if something ever happened to her, Wanda would find it. The letter reads like a premonition of her own death: Shalon wasn't afraid for herself, but agonized over how it would affect her mother.

> *I am sorry that I have left you. On the particular day that I am writing this I have no idea how that may have occurred but know that I would never choose to leave.*
>
> *I know it seems impossible right now, but please do not let this break you. I want you to be happy and smile. I want you to know that I am being watched after by my brothers and grandma and that we are all watching you. Please try not to cry. Use your energy instead to feel my love through time and space. Nothing can break the bond we have and you will forever be my mommy and I your baby girl!*

Now 11 months old, Soleil has her mother's precociousness, energy and headstrong yet sweet disposition. Like the sun she was named for, "she just lights up a room when she smiles," Wanda said. She comes into Wanda's bed every night and wakes her early to play. "She'll bite my nose and kick me — 'Nana, time to get up! Time to get up!'" And so Wanda does.

Do you know someone who died in pregnancy, childbirth or the postpartum period? Please tell us your story. If you want to reach out to us directly, email us at Maternal@propublica.org.

Nina Martin

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Additional Questions for the Record

Subcommittee on Health
Hearing on
"Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care"
September 10, 2019

Patrice Harris, M.D., M.A.
President, Board of Trustees
American Medical Association

The Honorable Nanette Diaz Barragán (D-CA)

Question 1: Our country is in a crisis when it comes to maternal health and maternal mortality. The United States has the worst rate of maternal deaths in the entire developed world. This should not be happening, not in the richest country in the history of mankind. This failure in our nation's health care system must be solved, so women stop dying needlessly, when in other countries they do not. What's worse, women of color disproportionately face a higher level of pregnancy related death. For instance, the Centers for Disease Control and Prevention found that black woman are 3.3 times more likely than white women to suffer a pregnancy related death.

This is an incredibly important issue for me, as my district is nearly 90 percent African American and Hispanic. I believe that one way to help solve the crisis of maternal mortality among people of color is by getting more people of color into the medical workforce. I saw a study that found that only 11.1 percent of OB-GYNs are African American and 6.7 percent are Hispanic. It was also found that these doctors are more likely to practice in medically underserved areas.

1. Can you discuss the importance of a diverse medical workforce, how that can help reduce the rates of maternal mortality, and what can Congress be doing to incentivize more people of color to enter the medical workforce?

Response 1: It is critically important to have a diverse health care workforce, well equipped to support the health and well-being of minority and underserved populations. Our nation is rapidly growing, aging, and becoming increasingly diverse. Through loans, loan guarantees, and scholarships to students and faculty, as well as grants and contracts to academic institutions and nonprofit organizations, Title VII health professions workforce development programs ensure the nation is equipped with a workforce that reflects the population it serves, while providing well-coordinated, quality care and improving access to care for all populations today and tomorrow. No other federally funded programs exist that improve the supply, distribution, and diversity of the physician workforce. We urge Members of Congress to work together in a bipartisan manner to secure sustained, meaningful funding for the Title VII health professions workforce development programs. We also urge Congress and the Administration to work together to pass Labor-HHS appropriations for FY 2020, ensuring that patients who benefit from

these programs are not negatively impacted by a lapse in funding. Additionally, we urge Congress to avoid any proposals that eliminate the Health Careers and Opportunity Program (HCOP). It is our understanding that just last year, HCOP recruited nearly 3,000 students from disadvantaged backgrounds who are more likely to practice in rural and other underserved localities as health professionals.

Question 2: An important step to ensure that we are reducing the rate of maternal mortality is to guarantee that everyone has access to affordable quality health insurance. That is why crucial programs like Medicaid must be protected and strengthened. A report from the Georgetown university Center for Children and Families found that expanding access to Medicaid under the Affordable Care Act was associated with 1.6 fewer maternal deaths per 100,000 women compared with states that did not expand. Additionally, a study published in the American Journal of Public Health found the mortality rate among African-American infants declined by 14.5% from 2010 to 2015 in expansion states, which was more than twice the decline in states that didn't expand Medicaid.

2. Can you talk about the importance that access to Medicaid has on reducing maternal mortality, and the impact to women's health if Medicaid were cut?

Response 2: The AMA agrees that access to Medicaid plays a significant role in maternal health. We strongly supported the expansion of Medicaid under the ACA. According to research by Georgetown University's Center for Children and Families (Georgetown CCF), states that expand Medicaid improve the health of women of childbearing age by increasing access to preventive care, reducing maternal mortality rates, and reducing adverse health outcomes before, during, and after pregnancies. In addition, a recent report by Georgetown CCF concluded that Medicaid expansion is an important step in addressing persistent racial disparities in maternal health and maternal mortality. Further, as noted by MACPAC, Medicaid has long played an important role in providing maternity-related services for pregnant women, paying for nearly half of all births in the United States. In its 2018 Issue Brief, MACPAC stated that "because Medicaid eligibility for many women with low incomes is tied to pregnancy, their source of insurance coverage may be unstable, affected by their pregnancy status, income, and state eligibility rules. As a result, they may experience interrupted care and delayed access to services." Additionally, because pregnancy-related deaths occurred during pregnancy, delivery, and up to a year postpartum, the AMA strongly supports the expansion of Medicaid coverage for one-year post-partum, which is a prime feature of H.R. 1897, the Mothers and Offspring Mortality and Morbidity Act (the MOMMA Act), which the AMA supports.

Question 3: An issue that must be addressed in the fight to reduce the rate of maternal mortality is eliminating doctor's implicit biases, as well as having doctors more effectively listening to patient's concerns. The National Partnership for Women and Families conducted a survey and issued a report entitled Listening to Latina Mothers in California. One finding that stood out to me was almost one-third of Latina mothers reported that they did not feel that the delivery room staff encouraged them to make decisions about how they wanted their births to progress, while only 21 percent of white women said they felt this way.

3. How can we ensure that doctors more effectively listen to their patients, and take their

patient's concerns to heart?

Response 3: Medical education curriculum incorporates teaching and training on implicit and explicit biases, to provide tools and build skills to recognize and eliminate bias, and integrate structural competency education, which as described by Dr. Jonathan Metzl "is a framework for conceptualizing and addressing health-related social justice issues that emphasizes diagnostic recognition of economic and political conditions producing and racializing inequalities in health." Although the AMA's Center for Health Equity is just getting up and running, there is great potential to enter this space and conduct an assessment of medical schools to find out which institutions offer and/or require implicit bias and other structural competency trainings. There also may be an opportunity to advance criteria on what needs to be included in the training as well as a list of organizations or individuals who could offer robust training in this area. We urge Congress to establish a program through the Administration to award grants to accredited schools of allopathic medicine, osteopathic medicine, and nursing, and other health professional training programs for the training of health care professionals to reduce and prevent discrimination (including training related to implicit biases) specifically related to the provision of health care services related to prenatal care, labor care, birthing, and postpartum care.

In addition, in 2019, the AMA announced its Reimaging Residency Initiative, designed to transform residency training to best address the workforce needs of our current and future health care system. Many of the applications to the graduate medical education initiative have included health systems science training in their proposals.

For practicing physicians, the AMA launched STEPSforward.™ an interactive practice transformation series offering innovative strategies that will allow physicians and their staff to thrive in the evolving health care environment by working smarter, not harder. This series includes a continuing medical education module on "Addressing Social Determinants of Health: Beyond the Clinic Walls." The interactive module helps physicians identify how to best understand the needs of their community, define a plan to begin addressing social determinants of health, and explains the tools available to screen patients and link them to resources.

Question 4: The California state Department of Public Health calculates that between 2006 and 2013, California lowered its maternal mortality rate by 55 percent. To do this, they created a - pregnancy-related mortality review board to examine the causes of every death, and developed comprehensive "how to" manuals detailing the best practices to address specific medical complications. While other states have implemented similar programs, they haven't had the same success as California.

4. Based off California's success, what can be done to help other states be as effective in reducing their rates of maternal mortality?

Response 4: It is our understanding that currently the U.S. Centers for Disease Control and Prevention (CDC) operates a voluntary Pregnancy Mortality Surveillance System by which the 50 states, New York City and Washington, DC voluntarily send copies of death certificates for all women who died during pregnancy or within one year of pregnancy, and copies of the matching birth or fetal death certificates, if they have the ability to perform such record links. We

urge the development of a national maternal morbidity and mortality data collection strategy so that states gather data in a consistent manner—a necessary step to developing strategies to address a problem is to first identify what the specific problems are. Additionally, it is our understanding that a total of fourteen Maternal Mortality Review Committees (MMRCs) voluntarily shared 2008-2017 data with CDC through the Maternal Mortality Review Information Application (MMRIA). Among 1,347 deaths to women during or within a year of pregnancy, a pregnancy-relatedness determination was made for 1,260 (93.5%). Among these, 454 (36.0%) were determined by the fourteen MMRCs to be pregnancy-related. As you know, MMRCs study local maternal death cases to identify how to make pregnancies safer and prevent tragic outcomes. We believe every state should have a MMRC, unfortunately however, only about thirty-three states have one. We are encouraged that the establishment of MMRCs are gaining momentum, but they remain in varying stages of formation. Congress can help improve the health and safety of pregnant women, and save families from devastating losses, by investing in local MMRCs. In addition, there should be a national system for state MMRCs to communicate/share findings and share strategies/educational materials developed to address problems. We also urge Congress to increase funding for State perinatal quality collaboratives (PQCs)–state or multi-state networks of teams working to improve the quality of care for mothers and babies. Many states currently have active collaboratives, and others are in development.

The Honorable Michael C. Burgess (R-TX)

Question 1: What has perplexed and disturbed me in a number of stories, including that of Dr. Irving, is that the issues patients present with have been communicated up the chain of command in the health care facilities, but have been dismissed or stalled. For the doctors on our panel – has there been any decrease in physician involvement in delivery and post-partum care over the course of time? **Question 1a:** Follow-up: Are there improvements in elements of the electronic health record or any other parts of the provider-to-provider communication system that could address this issue?

Response to 1 and 1a: While we do not have the qualitative data that encapsulates trends of physician involvement in a woman's post-partum care and her birthing experience, there are myriad disturbing anecdotes similar to Dr. Shalon Irving's experience, as you have noted. These cases suggest that somewhere along the care continuum, clinical decisions are sometimes made—or not made—without the fullest consideration of the patient's voice. This could be a result of clinical protocol, in which case a refinement in policy and practice could result in institutional changes. Or, it could be something more insidious and sensitive to acknowledge, but nonetheless very real in consequence: implicit bias. Whether racial, gender, socioeconomic, or otherwise based, implicit bias plays a role in clinical decision-making. The AMA, under the direction of our new Center for Health Equity, is committed to engaging this issue at the clinical, research, and policy levels.

With respect to the utility of electronic health records (EHRs), we believe that a key improvement in its elements would be to decouple federal reporting programs from EHR design. Removing reporting requirements would free EHR developers to focus on innovative ways to ensure that physicians have the most important and relevant information on a patient at any given

time, presenting physicians with a clearer window into a patient's health concerns—such as having a high-risk pregnancy or blood clots—without navigating through data unnecessarily captured for secondary and tertiary requirements.

Instead of focusing on EHRs as a tool for measuring physician actions, the EHR should improve physicians' clinical decision making. For example, more clarity is needed on whether the EHR was able to use the summary of care document without burdening the physician, whether the EHR was able to provide the physician with usable and actionable clinical information in a format that supports clinical decision making, and if the EHR enabled a closed-loop referral. Essentially, more needs to be done to understand how EHRs actually function and should function in the real world. This type and level of information is far more meaningful and valuable to physicians and the federal government, and should be what federal EHR reporting programs promote. Analyzing this information would expose the usefulness of the EHR, if the EHR could accommodate the needs of the physician, whether the EHR contributed to or detracted from patient care, and whether the EHR supported the goal of health information exchange. Knowing this will also help EHR vendors build better products. Opportunely, because EHRs already track what functionalities are used to perform tasks, EHR vendors should directly provide such information to the federal government.

CMS rebranded the Meaningful Use (MU) program as the Promoting Interoperability (PI) program. While it has changed names several times, the burden associated with EHR compliance remains the same. There are still requirements which force physicians to capture, document, and report on their interactions with the EHR that are unrelated to patient care. As an immediate first step, CMS should create broad categories of Promoting Interoperability (PI) objectives allowing physicians to attest "yes/no" to the use of certified EHRs to achieve those categories. This will provide flexibility for patients and physicians to efficiently test new uses of technology—identifying what does and does not work while encouraging the use of EHRs. Removing the burden of PI compliance and reporting will also help alleviate physician burnout related to EHR use. Continuing to require prescriptive PI measurement will detract from clinical relevance, add burden, and focus PI participation on documentation, reporting, and compliance rather than patient care, patient access, and interoperability.

More needs to be done to remove the unnecessary "noise" that's added in their notes simply to justify federal reporting requirements. This noise hides important clinical facts and detracts from patients and their care coordination. It is well documented that EHRs add cognitive burden and contribute to physician burnout. This is in large part due to the continued demands on physicians to document or capture information to accommodate measurement purposes, rather than recording clinically relevant information. Medicine is a data intensive field, but data capture and documentation comes at high cost in terms of time and loss of productivity.

Furthermore, technology continues to evolve, and current PI measures are likely to become quickly outdated or fail to promote innovative uses of digital health tools. Said another way, even the proposed 2020 MIPS PI measures are tied to the legacy of Meaningful Use. Given the Administration's focus on Patients over Paperwork and emphasis on reducing physician burden, measures that track and monitor physicians' use of EHRs should be abandoned allowing physicians to focus on providing care.

We appreciate your support in preventing MU requirements from becoming more stringent over time and believe that more must be done to limit demands on physicians' time including focusing federal reporting requirements the functionality of EHRs, allowing for EHR vendors to directly provide such information to the federal government, and allowing physicians to "yes/no" attest to the use of certified EHRs.

The Honorable Gus M. Bilirakis (R-FL)

Question 1: Because CMS already utilizes the National Quality Improvement Innovation Contract mechanism and there's already a set of qualified improvement organizations identified and ready to operate, couldn't we just appropriate to an entity like CDC and instruct them to work with CMS's established contractors in order to expedite the establishment of the quality collaboratives envisioned by H.R. 1551 – why or why not?

Response 1: Providing educational information and assistance to providers and physicians on the issue is essential to tackling the issue. Collaboratives allow organizations to share learnings and best practices. It is premature to move forward with developing quality measures as we must first study the issue to determine the root cause before mandating in legislation a quality program. It is also a conflict of interest to have the voluntary consensus standard-setting organizations to be involved in the development of quality measures. The Department of Health and Human Services is currently under contract with an outside entity that endorses measures, identifies measure development priorities, and measure gaps pursuant to section 1890 of the Social Security Act (42 U.S.C. § 1395aaa). To maintain the integrity of any quality program and avoid potential, real, or perceived conflicts of interest, the AMA believes that any entities receiving funding for measure development should not be involved in endorsing quality measures. Measure evaluation and endorsement should remain impartial and kept completely separate from measure development. This ensures the integrity of the measure endorsement process and avoids the concern of having a single entity responsible for implementing all domains of the quality agenda, from measure development to measure endorsement. Such a construct would inhibit engagement by other stakeholders, including physicians. In addition, it might limit access to a wide range of ideas, clinical and practical perspectives, and discourage the innovation that is truly needed for a successful program.

Currently, there is a private sector led initiative addressing measure alignment between CMS and private health insurance plans. Mandating such activity and involving the federal government would stifle progress, innovation and engagement.

Question 1a: Along the same lines, rather than establishing a separate Maternity Consumer Assessment of Health Care Providers and Systems survey, couldn't we simply add questions to the Hospital CAHPS survey – why or why not?

Response 1a: Tying a measure and score related to CAHPS to publicly reported ratings and accountability can be problematic, as CAHPS often depends more on patient perceptions than on good medicine. It also may not be appropriate to have a single survey that measures maternity

care across all settings and most likely may need a separate survey for each provider type. For example, CMS uses hospital-CAHPS to measure the hospital experience and CG-CAHPS to measure the primary care/internal medicine experience. There is even a separate CAHPS survey that measures surgical specialties. In addition, we believe CAHPS survey administration protocols are outdated and a need exists to allow for measures that use multiple modes of data collection. Allowing physicians to collect the information in the office through a tablet while the patient is in the waiting room, via smartphone app, for example, is needed. The broader patient population physicians can reach, the more likely they are to receive good response rates.

CMS also needs to also look outside of CAHPS to measure patient experience, such as the CollaboRATE tool/measure. CollaboRATE is a patient-reported measure of shared decision making which contains three brief questions that patients, their parents, or their representatives complete following a clinical encounter. The CollaboRATE measure provides a performance score representing the percentage of adults 18 years of age and older who experience a high level of shared decision making.

Additional Questions for the Record

Subcommittee on Health
Hearing on
"Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care"
September 10, 2019

Elizabeth Howell, M.D., M.P.P.
Director, Blavatnik Family Women's Health Research Institute
Icahn School of Medicine at Mount Sinai

The Honorable Robin L. Kelly (D-IL)

Question 1: The MOMMAs Act includes funding for a grant program to build up perinatal quality collaboratives. Dr. Howell, can you provide some insight on how important these collaboratives are addressing the underlying causes of maternal mortality?

Response 1: Perinatal quality collaboratives are state or multi-state networks of teams working to improve quality of care for mothers and babies. Members of perinatal quality collaboratives work together to identify health care processes that need to be improved and use the best available methods to make changes as quickly as possible. They facilitate change in the delivery of maternity care, improve the health of mothers and babies, and bend the maternity care cost curve. By accelerating adoption of best practices, collaboratives help eliminate elective inductions before 39 weeks, increase breast feeding rates, improve treatment of and reduce the costs associated with neonatal abstinence syndrome, and much more.

An important aspect of perinatal quality collaboratives is their ability to streamline innovative ways to develop and distribute information to improve outcomes and reduce health care costs beyond just one city or hospital system. They do this by sharing best practices and lessons learned with providers and hospitals that may not typically have access to that type of information – including those in small, rural communities.

Successful state and regionally based quality improvement collaboratives in places such as California, Maryland, Ohio, Illinois and Michigan have supported increased use of evidence-based guidelines, led to reductions in costly medical interventions, and improved linkages between hospital and community-based medicine. These locally responsive mechanisms for improving maternity care quality through the spread of best practices should be encouraged and expanded.

The Honorable Nanette Diaz Barragán (D-CA)

Question 1: An important step to ensure that we are reducing the rate of maternal mortality is to guarantee that everyone has access to affordable quality health insurance. That is why crucial programs like Medicaid must be protected and strengthened. A report from the Georgetown university Center for Children and Families found that expanding access to Medicaid under the Affordable Care Act was associated with 1.6 fewer maternal deaths per 100,000 women compared with states that did not expand. Additionally, a study published in the American Journal of Public Health found the mortality rate among African-American infants declined by 14.5% from 2010 to 2015 in expansion states, which was more than twice the decline in states that didn't expand Medicaid.

1. Can you talk about the importance that access to Medicaid has on reducing maternal mortality, and the impact to women's health if Medicaid were cut?

Response 1: Medicaid is the largest single payer of maternity care in the US, covering 43% of births and playing a critical role in ensuring healthy moms and healthy babies through access to pregnancy-related care. Many state Medicaid programs also provide comprehensive well-woman care, including primary care services such as cancer and domestic violence screenings.

The ACA Medicaid expansion ensures a public safety net for no-income and low-income, non-pregnant women. This means that many women who otherwise would not qualify for coverage until becoming pregnant, or could not afford coverage offered to them, now have access to primary and preventive care, and an opportunity to optimize their health pre-pregnancy. Instead of rolling back Medicaid expansion, all states should be encouraged to expand their programs.

Currently, Medicaid coverage for pregnant women ends roughly 60-days postpartum. As Maternal Mortality Review Committees (MMRC) have increasingly revealed, many deaths related to pregnancy occur after this time. In fact, the CDC estimates that 33% of maternal deaths occur one week to 12 months after delivery, which is likely underestimated as the CDC assessment did not account for deaths from overdose, suicide, homicide, or unintentional injury. Accordingly, a number of MMRCs have recommended extending Medicaid coverage for women to a full year postpartum. Already, federal statute requires that a baby born to a mother on Medicaid is covered under Medicaid through the first year of life. As Congress explores additional ways to improve health outcomes, closing this critical gap in coverage during this incredibly vulnerable time can mean the difference between life and death for some women.

Question 2: An issue that is eliminating doctor's implicit biases, as well as having doctors more effectively listening to patient's concerns. The National Partnership for Women and Families conducted a survey and issued a report entitled Listening to Latina Mothers in California. One finding that stood out to me was almost one-third of Latina mothers reported that they did not feel that the delivery room staff encouraged them to make decisions about how they wanted their births to progress, while only 21 percent of white women said they felt this way.

2. How can we ensure that doctors more effectively listen to their patients, and take their patient's concerns to heart?

Response 2: This is an important question. We must listen to our patients and take their concerns to heart. There is a growing focus across the US on implicit bias training. Some medical schools, including my institution, have rolled out implicit bias trainings for physicians, nurses, and trainees in an effort to help clinicians recognize their own unconscious biases and take steps to address them. While this is one needed step to address communication failures, there are a number of other important trainings that that can help to optimize patient doctor communication. In the Alliance for Innovation on Maternal Health Peripartum Disparities Reduction Bundle there are a number of resources listed to help hospitals and health systems take steps to improve communication. For example, shared decision-making is an important aspect of the physician patient relationship and AHRQ has a tool called the Share Approach which is a five-step process for shared decision-making that explores and compares the benefits, harms, and risks of each option through dialogue about what matters most to the patient. This is just one example of many tools that can be utilized to enhance communication.

Improvements in medical education can also help to improve patient doctor communication. Medical schools should ensure that best practice curricula for communication is utilized in pre-clerkship years (years 1 and 2 of medical school) to make sure that medical students are learning the right listening/ communication skills.

Question 3: The California state Department of Public Health calculates that between 2006 and 2013, California lowered its maternal mortality rate by 55 percent. To do this, they created a - pregnancy-related mortality review board to examine the causes of every death, and developed comprehensive "how to" manuals detailing the best practices to address specific medical complications. While other states have implemented similar programs, they haven't had the same success as California.

3. Based off California's success, what can be done to help other states be as effective in reducing their rates of maternal mortality?

Response 3: California has been a leader in the effort to reduce maternal mortality. In addition to their pregnancy-related mortality review board that aims to examine causes of every maternal death, the California Maternal Quality Care Collaborative was formed as a public-private partnership to lead maternal quality improvement activities. They have undertaken a number of key steps that other states could adopt: 1) linking public health surveillance to actions, 2) mobilizing a broad range of public and private partners, 3) developing a rapid-cycle Maternal Data Center to support and sustain quality improvement initiatives, and 4) implementing a series of data-driven large-scale quality improvement projects. California uses findings from their pregnancy-mortality review board to drive quality improvement. They have a robust data infrastructure that provides hospitals across the state with quality metrics (e.g. low risk cesarean rates, elective delivery rates, severe maternal morbidity rates) and they stratify the results by race and ethnicity so hospitals know how well they are performing on important maternal health parameters for the patients they serve.

A crucial part of our fight to reduce maternal mortality and severe maternal morbidity relies on data and measurement. California has the most robust infrastructure for data and measurement. Providing resources to insure that states across the country have access to data on performance is a critical step in our effort to reduce maternal mortality and severe maternal morbidity

The other very important step that California has taken is the implementation of quality improvement activities targeting causes of maternal death. They have implemented maternal safety bundles in hospitals and these tools target some of the most preventable causes of a maternal death (e.g. hemorrhage, hypertension, venous thromboembolic disease). This model is currently being implemented across the United States in a program entitled the Alliance for Innovation on Maternal Health (AIM). This program currently reaches 30 states but more resources are needed to ensure adequate implementation of maternal safety bundles in hospitals and health systems across the United States.

The Honorable Michael C. Burgess (R-TX)

Question 1: What has perplexed and disturbed me in a number of stories, including that of Dr. Irving, is that the issues patients present with have been communicated up the chain of command in the health care facilities, but have been dismissed or stalled. For the doctors on our panel – has there been any decrease in physician involvement in delivery and post-partum care over the course of time? **Question 1a.** Follow-up: Are there improvements in elements of the electronic health record or any other parts of the provider-to-provider communication system that could address this issue?

Response to 1 and 1a: EHRs are not designed to document many women's health conditions. For instance, there are no discrete elements to describe the following symptoms/complications: high blood pressure, pre-eclampsia, eclampsia, gestational diabetes mellitus, organ failure, prior pre-term birth, prior pregnancy complications, mental health conditions, lifestyle factors (i.e. drug/opioid dependence, tobacco use disorder).

As a result, many common conditions are buried in the problem list and may not be easily identified by the attending physician. Further, EHRs may not be designed to alert physicians to potentially problematic vital signs or test results in pregnant and postpartum women. For instance, the threshold for a problematic high blood pressure may be lower in a postpartum woman than an average patient.

Additionally, interoperability between inpatient and outpatient EHRs should be improved. Physicians should be able to access and easily interpret records from an inpatient stay during subsequent outpatient visits. Currently, the amount of information in the inpatient record often makes it difficult for a provider to find what they are looking for. EHRs could ameliorate this by allowing for the filtering of information.

The Honorable Gus M. Bilirakis (R-FL)

Question 1: Are there concerns within the research community regarding the integrity of the data being collected in states, and, if so, what are those concerns and how might they be addressed?

Response 2: The best way for us to collect data on maternal death is through state Maternal Mortality Review Committees (MMRC). These committees include a group of local, interdisciplinary, maternal health stakeholders -- ob-gyns, nurses, social workers, epidemiologists, and patient advocates -- who review individual maternal deaths and recommend solutions to prevent future deaths and complications to their State Department of Health. They utilize a variety of data sources to ascertain whether a pregnancy-related death occurred, review contributing factors, and determine whether the death was preventable. MMRCs help develop local solutions to local problems, informing national solutions to save mothers' lives.

While vital statistics-based surveillance systems can be useful for monitoring trends they often under report pregnancy-related deaths. State and local maternal mortality review committees (MMRCs) are best positioned to both comprehensively assess deaths to women during pregnancy and the year after the end of pregnancy, and identify opportunities for prevention.

MMRCs use vital records data and medical and social service records to understand the factors that influence maternal deaths. It is from MMRCs that we have learned that over half of pregnancy-related deaths in the United States are preventable. In addition to assessing preventability, MMRCs are able to make jurisdiction-specific recommendations and promote strategies to prevent future deaths. Examples of data-driven actions from MMRCs include: the development of urgent bulletins to providers on the dangers of placental disorders and peripartum cardiomyopathy, efforts to increase knowledge of maternal deaths related to substance use and suicide, efforts to address gaps in services for women related to mental health and substance use, and obstetric emergency simulation trainings to prepare hospitals to address hemorrhage, cardiomyopathy, and preeclampsia.

Additional Questions for the Record

Subcommittee on Health
Hearing on
"Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care"
September 10, 2019

David B. Nelson, MD, FACOG
Assistant Professor of Obstetrics and Gynecology
Division of Maternal-Fetal Medicine
University of Texas Southwestern Medical Center

October 12, 2019
Dr. Nelson – Introduction: Distinguished members of the Energy and Commerce Subcommittee on Health, thank you again for the opportunity to speak on behalf of Parkland Hospital and the University of Texas Southwestern Medical Center at the September 10, 2019, hearing entitled, "Maternal Health: Legislation to Advance Prevention Efforts and Access to Care." The following contains the questions and my responses in the format requested from each member:

The Honorable Nanette Diaz Barragán (D-CA)

Question 1. An issue that must be addressed in the fight to reduce the rate of maternal mortality is eliminating doctor's implicit biases, as well as having doctors more effectively listening to patient's concerns. The National Partnership for Women and Families conducted a survey and issued a report entitled Listening to Latina Mothers in California. One finding that stood out to me was almost one-third of Latina mothers reported that they did not feel that the delivery room staff encouraged them to make decisions about how they wanted their births to progress, while only 21 percent of white women said they felt this way.

1. How can we ensure that doctors more effectively listen to their patients, and take their patient's concerns to heart?

Response 1: There is a growing body of literature that validates the public health impact of racial bias, implicit and explicit, on the lives and health of people of color.[1] Moreover, evidence suggests that factors such as stereotyping and implicit bias on the part of the healthcare providers may contribute to racial and ethnic disparities in health.[2] Addressing such implicit bias is one of the priorities in advancing maternal care in the United States. At a national level, for example, the American College of Obstetricians and Gynecologists are taking a leadership role in addressing this issue.[2]

At both Parkland Hospital and UT Southwestern Medical Center, we have recognized these disparities and have developed a number of local programs to address such bias. This includes organizational commitments to bias training and cultural competency to eliminate such bias and advance health equity. For example, at Parkland Hospital, there is a Diversity, Inclusion, and Health Equity Department with a director that uses a blueprint from the National Culture and Linguistically Appropriate Services to foster an inclusive workplace and advance health equity. There is also a no-cost instructor-led series offered once per month to Parkland Hospital

employees to educate and coach on culturally-sensitive practices and to review the impact of unconscious bias and stereotypes. For our Latina mothers, a robust Language Services department provides access to translation services in an effort to ensure effective communication in shared decision-making for our non-English speaking patients is performed in an environment without barriers. In fact, more than 1 million patient interpretations were provided by Parkland Language Services last year.

This commitment to addressing bias is a cornerstone of our maternity service. On June 13, 2018, as part of the Obstetric Performance Improvement Committee meeting—the hallmark meeting of quality assurance and performance improvement for the Parkland Obstetric service—patient experience was a dedicated discussion for our team of physicians, nurses, and advance practice providers. This effort dovetailed one of the hospital-wide strategic priorities to create an inspiring and supportive environment and culture. The ultimate goal of this effort is to foster high quality and compassionate care through focus on the patient and employee experience. Indeed, several of our mother-baby ward units were chosen as the models of care last year within the organization with initiatives to include "Knock and Pause," "Leader Rounds," and "Commit to Sit" by the mother-baby nursing staff to enhance patient experience. We are proud to report that this effort has been a sustained success for the organization and emphasize its importance because culturally derived mistrust of the health care system can decrease adherence to clinical recommendations.[2] Although more should be done, there is some evidence that these efforts are impactful. For the most recent patient satisfaction report for Parkland Hospital (Press Ganey Report, 4/1/2019-6/30/2019), that included 53% of respondents that were non-white and 34% in Spanish-language, Parkland Hospital was reported as the 99th percentile (highest) for safety net hospitals for "explanations about what would happen during tests and treatments" and 94th percentile for safety net hospitals for the patient reported metric of perceived "Physician's concern for your questions and worries." Moreover, for Press Ganey surveys returned from June 2019 to August 2019, Parkland Hospital is in the 91st percentile in the country (for all hospitals in the Press Ganey Database, 2,784 hospitals) and also 91st percentile for all University Health Systems (teaching hospitals in the Press Ganey Database, 252 hospitals) and in the 96th percentile for government hospitals with 300 beds or more. These are a tangible metrics to characterize the organizational effort to hear every one of our patients. UT Southwestern has similar results with obstetrics and gynecology patients ranking their providers in "MD Communication" at the 99 percentile for the past 3 years. While collectively more is needed across all areas of medicine, these local programs show potential in reaching our patients and hearing their voice.

References:

1. American College of Obstetricians and Gynecologist. Statement of Policy. ACOG Statement of policy on racial bias. Issued by the Executive Board of the American College of Obstetricians and Gynecologists and the American Congress of Obstetricians and Gynecologists. February 2017.
2. Racial and ethnic disparities in obstetrics and gynecology. Committee Opinion No. 649. American College of Obstetricians and Gynecologists. Obstet Gynecol 2015; 126:e130-4.

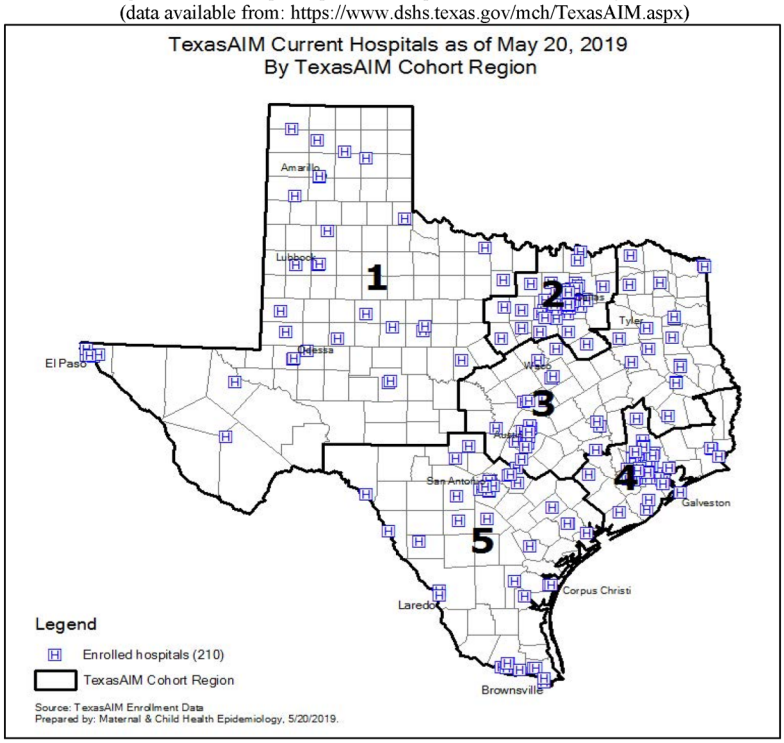
Question 2: The California state Department of Public Health calculates that between 2006 and 2013, California lowered its maternal mortality rate by 55 percent. To do this, they created a - pregnancy-related mortality review board to examine the causes of every death, and developed comprehensive "how to" manuals detailing the best practices to address specific medical complications. While other states have implemented similar programs, they haven't had the same success as California.

2. Based off California's success, what can be done to help other states be as effective in reducing their rates of maternal mortality?

Response 2: The recent reports of maternal mortality trends in California offer promise. From the outset, the initiatives within California had a strong partnership with the American College of Obstetricians and Gynecologists (ACOG, District IX), that included obstetricians and maternal-fetal medicine specialists from all over California, and also involved nurses, midwives, anesthesiologists, emergency physicians, cardiologists and social scientists. Commitment—ie., "buy in"—from all of these groups is an essential first step to ensure that maternal deaths are both correctly identified as pregnancy-related as well as documentation of associated conditions for future preventability. As noted by Dr. Elliot Main from California, "The early goals were not only to identify the causes and demographics of these tragedies, but also to drill down in the medical records and see where there were opportunities to improve care." These findings became the basis for many of the recommendations in the California Maternal Quality Care Collaborative (CMQCC) Quality Improvement Toolkits for Obstetric Hemorrhage and Hypertension. Thereafter, Quality Improvement Collaboratives followed the toolkits in 2010, and there is now a state-wide Quality Improvement project with over 125 hospitals engaged. California, however, is not alone. A similar program from New York inspired the National Partnership for Maternal Safety and the National Safety Bundles.

These efforts share similar principles with the ongoing work in Texas, such as the newly formed regionalization program known as "Maternal Levels of Care" as well as the Alliance for Innovation on Maternal Health (AIM) Plus program. Specifically, the AIM collaborative in Texas includes participation among the Texas Hospital Association, Department of State Health, and now includes more than 200 (95%) hospitals in Texas that provide birthing services (Figure). Indeed, more than 80% of the hospitals have joined the Texas AIM Plus program.

Figure. Texas AIM participation of hospitals in Texas as of May 20, 2019
(data available from: https://www.dshs.texas.gov/mch/TexasAIM.aspx)



Collectively, these programs in states like California, New York, and Texas all share a common theme. Fundamentally, these initiatives represent an effort to standardize care with specific recognition and response to various obstetric conditions placing the mother at risk for death. In essence, these programs are attempting to refine the content of obstetric care. That is, to reduce maternal mortality, the care delivered must be both accessible and also consistent and of good quality. This is exemplified by the incorporation of "checklists," "bundles," and "protocols."

At a local level, our program at Parkland Hospital represents a unique model to demonstrate the significance of standardized care quality—i.e., content—in a Medicaid-funded population. Recall, Parkland Hospital represents a public hospital serving almost exclusively medically-indigent women. Of the 12,671 women delivered last year, 90% were Medicaid-funded. Thus, the Parkland Obstetrics model can be viewed as a system potentially generalizable to the nearly 2 million government-funded (Medicaid-funded) deliveries in our country every year. This is a system of care with administrative and medical oversight that is highly integrated. The same prenatal protocols are used by nurse practitioners at all 10 prenatal clinic sites within the Parkland system to guarantee consistent, protocol-based care that includes standardized referrals

of high-risk women to a centrally-located prenatal clinic specifically designed for women with high-risk pregnancy complications. The strength of the Parkland Obstetrics system of care is that there is uniform access with cohesive care plans across the more than 900 square miles of Dallas County for all of our patients. This avoids wastage by providing consistent care delivery, care coordination, and uniform treatment plans using evidenced-based practices.

The Honorable Michael C. Burgess (R-TX)

Question 1: What has perplexed and disturbed me in a number of stories, including that of Dr. Irving, is that the issues patients present with have been communicated up the chain of command in the health care facilities, but have been dismissed or stalled. For the doctors on our panel – has there been any decrease in physician involvement in delivery and post-partum care over the course of time?

Response 1: To address maternal mortality, engagement and involvement by medical staff is vital. There are four domains wherein such involvement can be identified to have an impact on the delivery of care. This begins with physician involvement in addressing barriers to care. A recent example is the Healthcare Effectiveness Data and Information Set (HEDIS) measure for postpartum care. HEDIS is a widely used set of performance measures in the managed care industry, developed and maintained by the National Committee for Quality Assurance (NCQA). Previously, for postpartum women the target time point for women to receive a postpartum visit was between 21-56 days after delivery. Those seen outside of this window were viewed as not meeting the measure. The unintended consequence of this measure was that physician leaders were forced to advocate for patient postpartum appointments when deemed medically appropriate despite failing the HEDIS measure. For example, our practice for women with hypertension after delivery was to see them for a visit at 7 days following delivery. Thus, physicians championed access to care despite external pressures not to do so. We are grateful that it was recently announced that this HEDIS measure for postpartum care is changing thanks in large part to physician advocacy.

The second domain of physician involvement is clinical leadership. The "chain of command" must have a clinical leader to orchestrate the increasingly complex care needs of our patients. Although this seems intuitive, physicians serving in clinical leadership roles should be encouraged. In Texas, the recent Maternal Levels of Care program outlines specific roles and responsibilities for both the medical staff and leaders (Table). This is a directive, endorsed by the state, to ensure physician alignment with specific clinical duties and expectations. Taken further, the Texas Maternal Levels of Care Level IV programs must have a dedicated "Maternal Medical Director" (MMD) who is a physician with the following credentials and responsibilities to include:

> (1) is a board certified obstetrics and gynecology physician with expertise in the area of critical care obstetrics; or a board certified maternal fetal medicine physician, both with privileges in maternal care;
> (2) demonstrates administrative skills and oversight of the Quality Assurance and Performance Improvement (QAPI) Program; and
> (3) has completed annual continuing education specific to maternal care, including complicated conditions.

Table. Texas Maternal Levels of Care designation requirements for Medical Staff and Maternal Medical Director (MMD) as outlined in Texas Administrative Code Title 25, Part 1, Chapter 133, Subchapter K.

133.205.c	Medical Staff. The facility shall have an organized maternal program that is recognized by the medical staff and approved by the facility's governing body.
133.205.c.1	The credentialing of the maternal medical staff shall include a process for the delineation of privileges for maternal care.
133.205.c.2	The maternal medical staff will participate in ongoing staff and team based education and training in the care of the maternal patient.
133.205.d	Medical Director. There shall be an identified Maternal Medical Director (MMD) and/or Transport Medical Director (TMD) as appropriate, responsible for the provision of maternal care services and credentialed by the facility for the treatment of maternal patients. The responsibilities and authority of the MMD and/or TMD shall include:
133.205.d.1	examining qualifications of medical staff requesting maternal privileges and making recommendations to the appropriate committee for such privileges;
133.205.d.2	assuring maternal medical staff competency in managing obstetrical emergencies, complications and resuscitation techniques;
133.205.d.3	monitoring maternal patient care from transport if applicable, to admission, stabilization, operative intervention(s) if applicable, through discharge, and inclusive of the QAPI Program;
133.205.d.4	participating in ongoing maternal staff and team based education and training in the care of the maternal patient;
133.205.d.5	overseeing the inter-facility maternal transport;
133.205.d.6	collaborating with the MPM in areas to include: developing and/or revising policies, procedures and guidelines, assuring medical staff and personnel competency, education and training; and the QAPI Program;
133.205.d.7	frequently leading and participating in the maternal QAPI meetings;
133.205.d.8	ensuring that the QAPI Program is specific to maternal and fetal care, is ongoing, data driven and outcome based;
133.205.d.9	participating as a clinically active and practicing physician in maternal care at the facility where medical director services are provided;
133.205.d.10	maintaining active staff privileges as defined in the facility's medical staff bylaws; and
133.205.d.11	developing collaborative relationships with other MMD(s) of designated facilities within the applicable Perinatal Care Region.

Unfortunately, the availability of such physician leaders is limited. First, there a limited number of experienced clinicians with such credentials. Second, there are significant workforce shortages within obstetrics and gynecology altogether. Indeed, the workforce is aging, the average number of work hours are declining, and increasing numbers of obstetricians and gynecologists are retiring from obstetrics altogether. More than 15,000 of the nearly 40,000 actively practicing obstetricians and gynecologists will likely retire in the next 10 years. Importantly, the number of obstetricians and gynecologists retiring will soon equal the number of resident graduates. The demand for obstetricians and gynecologists by 2020 in Texas is projected to be among the highest in any state, and nationally there is expected to be a shortage between 3,000-9,000 obstetrician-gynecologist physicians by 2030. With projections of relatively fewer general internists and family physicians, more women will be in need of health care. Thus, the strain on the obstetric workforce will likely heighten. This is sobering when considering that approximately half (49%) of the 3107 United States counties currently lack an obstetrician-

gynecologist physician.

What are possible solutions to this shortage in the physician workforce for maternal care? Without sufficient funding for graduate medical education, residency programs will not grow, and may decline, further overwhelming the service needs of our patients. Our goals should be to improve practice efficiency, and increase the use of health information technology to further expand the medical care reach. We should also encourage more medical students to pursue careers in women's health by recognizing the physician work-lifestyle balance and support loan repayment programs to attract obstetricians and gynecologists to provider shortage areas. Lastly, and most importantly, our efforts should promote collaborative models with certified nurse midwives, certified nurse practitioners, and physician assistants to establish "teams" led by obstetrician-gynecologist physicians. Both at Parkland Hospital and UT Southwestern, this model is deployed. At Parkland Hospital, advanced practice providers—both certified nurse midwives and nurse practitioners—are a resource used to extend care across Dallas County. Among the 10 women's health care clinics and central high-risk clinic, there are more than 100 advanced practice providers delivering prenatal and postpartum care. The certified nurse midwife program established by Dr. Kenneth Leveno celebrated 30 years of service in 2017. Today, more than 30 certified nurse midwives with more than 500 combined years of experience integrate with physicians as such a team. In 2017, our team published a manuscript as one of the three "Editor's Choice" articles discussed for the July 2017 edition of *Obstetrics & Gynecology*—the official journal for the American College of Obstetricians and Gynecologists. This was a four-year prospective study of nearly 4,000 women evaluated in our triage unit and discharged to home after standardized assessment by our advanced practice providers under the supervision of physicians. We found that women discharged with false labor at term after a standardized assessment were not at increased risk for adverse perinatal outcomes or cesarean delivery. The results of this manuscript have far-reaching implications to providers and patients by providing some evidence-based information regarding the safety of clinical decision-making for discharge home with the diagnosis of false labor by extension of care with advanced practice providers.

Although the role of physician leadership is important, accountability of *all* health care providers—both physicians and non-physicians—should be our collective goal. Quality assurance and performance improvement programs should be highlighted with monitoring of deviations in practice or care by any healthcare team member. An example would be tracking timeliness of antihypertensive medication to women with severe range blood pressure (>160/110 mmHg). It is our hope that this is an ongoing process in quality improvement. Ultimately, it is our hope that more physician leadership and care extension with advanced practice providers coupled with accountability within the "chain of command" will lead to improved maternal health in the future.

Question 1a: Follow-up: Are there improvements in elements of the electronic health record or any other parts of the provider-to-provider communication system that could address this issue?

Response 1a: Yes, absolutely. There are elements of the electronic health record that are good examples of technology assisting delivery of care to our patients. For example, as part of our ongoing, quality improvement for maternal services at Parkland Hospital, we have implemented an "urgent request to the bedside" function with our nursing partners to electronically track and monitor timeliness to a patient's bedside for immediate care. This initiative identifies immediate, life-threatening conditions such as elevated blood pressure and hemorrhage, with an organized response by a nursing-physician team. All activations for "mother-baby" ward unit urgent

responses to the bedside are reviewed within the Parkland Women and Infant Services (WISH) Adverse Event quality meeting held monthly as an organization. Each case is also reviewed by a team of nurses for opportunities of improvement.

Outside of Parkland, there is a network of hospitals that utilize the electronic medical record platform of EPIC that has a function titled, "Care Everywhere," that allows specific medical record features to be shared across organizations. This network is in more than 25 hospitals in Texas and is a feature utilized both at Parkland Hospital and UT Southwestern Medical Center. Utilizing this resource can provide relevant information from care in a prior hospitalization at another facility. To date, Parkland Hospital has shared over 25.2 million records with other organizations using the "Care Everywhere" function. Similarly, we've received over 10.5 million records from other organizations for patients we care for at Parkland. In all, over 650,000 unique patients have had records sent or received. This year alone, Parkland as an organization sent and received 1.4 million and 1.9 million records respectively. We have shared with literally every state in the country. To provide context to the value from this information exchange, year to date alone, we have avoided over 15,000 medication orders being entered inappropriately thanks to outside information received.

The Honorable Gus M. Bilirakis (R-FL)

Question 1: As I've alluded to, maternal mortality is a bipartisan problem deserving bipartisan attention and response. Recently, my colleague on this Committee, Dr. Bucshon, introduced the bipartisan Excellence in Maternal Health Act to help reduce maternal mortality by improving health care provider education and training, and to develop and disseminate best practices to help ensure women get proper care, and to help reduce discrimination and bias? (a) To this end, collaboration is key. Is it important to include epidemiologists and statisticians at the table when formulating a program to help identify, develop, or disseminate best practices – why or why not?

Response 1: There can be no doubt that teamwork in healthcare is key, and this includes partnership amongst physicians, epidemiologists, and statisticians in developing and understanding the importance of relevant quality data. To advance the national effort in improving both maternal mortality and morbidity, it is critical that accurate, relevant clinical data are reported and are used by statisticians and epidemiologists to guide decisions for healthcare policy. Clinicians and statisticians must work together. Clinicians have a responsibility to identify clinically relevant quality metrics so that appropriate healthcare performance can be measured in a meaningful process. By not doing so, statisticians are left "connecting dots" without understanding the clinical context of what is in the "dot."

Incorrectly connecting dots can lead to unintended consequences. For example, one method of assessing "quality" of maternal care is measuring rates of severe maternal morbidity (SMM), or near-misses. These are unexpected outcomes that result in significant short- or long-term consequences to a woman's health, such as hysterectomy and transfusion. These SMM rates are also almost universally derived from hospital billing codes–simply because no other data sources are available. It is critical that clinical leaders and epidemiologists work together to understand the potential unintended consequences of tracking such "SMM" metrics, especially transfusion of blood. Blood transfusion is the single greatest contributor to the SMM rate both at Parkland Hospital and nationally. In 2014, blood transfusion accounted for more than 80% of the SMM rate in the United States. We caution, however, that this can become a perverse surrogate of quality. If a provider hesitates, or worse, withholds a transfusion of blood to a patient to avoid

the "label" of SMM, then there is an unintended risk of mortality. Indeed, the reason obstetric hemorrhage is deadly is because of failure to promptly restore a woman's circulating blood volume. This can have far-reaching consequences in quality measurement across hospitals. For example, a hospital with a high rate of transfusion could be considered inferior to a hospital with a low rate of transfusion. Is it possible that this evaluation is upside down? The hospital with the higher transfusion rate may actually be higher in quality than the hospital with a low rate of transfusion as measured by mortality. We must be careful to not inadvertently worsen mortality while trying to avoid a surrogate of morbidity by careful selection of quality metrics. By aligning clinicians, epidemiologists, and statisticians, such missteps can potentially be avoided.

Our team at Parkland Hospital and UT Southwestern Medical Center have such a program with clinicians and biostatisticians working together in healthcare outcomes research. Dr. Don McIntire, a biostatistician, has been integrated into our team for more than 20 years. This partnership has produced more than 200 peer-reviewed publications that are almost exclusively clinically-based. Dr. McIntire and his team of trained research nurses are an integral part of promoting and improving healthcare quality by conducting healthcare outcomes research alongside physician partners. It is this partnership that fosters continuous quality improvement, and it should be encouraged among other healthcare systems.

Dr. Nelson - Conclusion:

In closing, thank you again for the opportunity to testify at the September 10, 2019, hearing entitled, "Maternal Health: Legislation to Advance Prevention Efforts and Access to Care." I would also like to thank the members for their questions and interest in this important subject. This interest is producing meaningful results by encouraging national, regional, state, and local stakeholders to work together in multidisciplinary collaboratives and regionalization programs. The state, regional, and federal-sponsored programs, such as Maternal Mortality Review Committees and Maternal Levels of Care, are tangible examples of this orchestrated response among hospital administration and health care teams. Because of this interest and support, caregivers in obstetrics have been galvanized to study and lower maternal mortality rates in the United States. And although we do not yet have all of the answers, some of these efforts show promise for the future.

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Additional Questions for the Record

Subcommittee on Health
Hearing on
"Improving Maternal Health: Legislation to Advance Prevention Efforts and Access to Care"
September 10, 2019

Ms. Usha Ranji
Associate Director, Women's Health Policy
Kaiser Family Foundation

The Honorable Nanette Diaz Barragán (D-CA)

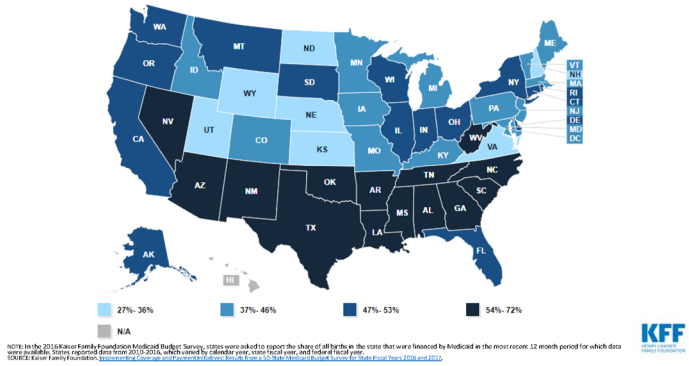
Question 1: An important step to ensure that we are reducing the rate of maternal mortality is to guarantee that everyone has access to affordable quality health insurance. That is why crucial programs like Medicaid must be protected and strengthened. A report from the Georgetown university Center for Children and Families found that expanding access to Medicaid under the Affordable Care Act was associated with 1.6 fewer maternal deaths per 100,000 women compared with states that did not expand. Additionally, a study published in the American Journal of Public Health found the mortality rate among African-American infants declined by 14.5% from 2010 to 2015 in expansion states, which was more than twice the decline in states that didn't expand Medicaid.

1. **Can you talk about the importance that access to Medicaid has on reducing maternal mortality, and the impact to women's health if Medicaid were cut?**

Response 1: Medicaid, the nation's health coverage program for poor and low-income people, provides millions of low-income women across the nation with health and long-term care coverage. Women comprise the majority of the adult Medicaid population, and two-thirds (67%) of adult women on Medicaid are in their reproductive years (19 to 49). Medicaid covers a wide range of reproductive health care services, including family planning, and pregnancy-related care including prenatal services, childbirth, and postpartum care—all without cost-sharing.

Medicaid is the largest single payer of pregnancy-related services, financing 43% of all U.S. births in 2016. In five states and DC, Medicaid covers more than 60% of all births. By federal law, all states provide Medicaid coverage without cost sharing for pregnancy-related services to pregnant women with incomes up to 133% of the federal poverty level (FPL) and cover them up to 60 days postpartum. Many states set higher income thresholds, recognizing the importance of coverage during the perinatal period. Infants born to women covered by Medicaid are covered through at least the first year of life.

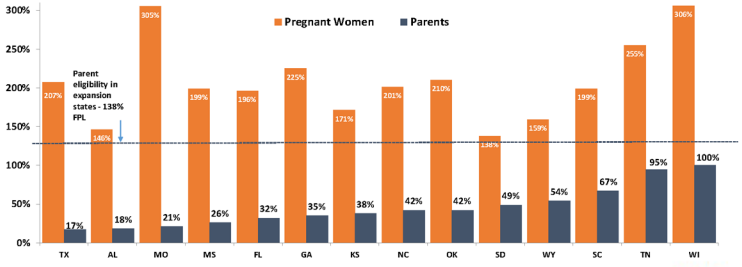
Medicaid is the Leading Financer of Maternity Care in Many States



NOTE: In the 2016 Kaiser Family Foundation Medicaid Budget Survey, states were asked to report the share of all births in the state that were financed by Medicaid in the most recent 12 month period for which data were available. States reported data from 2013-2016, which varied by calendar year, state fiscal year, and federal fiscal year.
SOURCE: Kaiser Family Foundation, Implementing Coverage and Payment Initiatives: Results from a 50-State Medicaid Budget Survey for State Fiscal Years 2016 and 2015.

To date, 36 states and DC have adopted expanded eligibility for Medicaid under the ACA and offer low-income women the opportunity to continue their pregnancy related Medicaid coverage after the 60 days postpartum period. In the 14 states that have not adopted the ACA's Medicaid expansion, postpartum women need to requalify for Medicaid as parents to stay on the program. While the eligibility thresholds for pregnant women typically go higher than the minimum federal requirement of 138% FPL, Medicaid income eligibility levels for parents are much lower than for pregnant women in all of the states, as low as 17% FPL ($3,636 for a family of three) in Texas). As a result, many women in non-expansion states become uninsured after pregnancy-related coverage ends 60 days postpartum because, even though they are poor, their income is still too high to qualify for Medicaid as parents.

Medicaid Eligibility Thresholds for Pregnant Women Compared to Parents in Non-Expansion States, 2019



NOTE: For pregnant women, reflects highest eligibility limit for pregnant women under Medicaid, CHIP, or the unborn child option. For "Parents," eligibility limits calculated as a percent of the Federal Poverty Level (FPL) & are calculated based on a family of three for parents. In 2019, the FPL was $21,330 for a family of three. Thresholds include the standard five percentage point of the FPL disregard.
SOURCE: Based on national survey conducted by Kaiser Family Foundation (KFF) with the Georgetown University Center for Children and Families, 2019.

Several research studies have demonstrated the important role of Medicaid for accessing sexual and reproductive health services as well as pregnancy-related care. Examples include:

- An analysis of the impact of pre-ACA state Medicaid expansions for low-income parents on insurance coverage before pregnancy that found an association between the expanded eligibility and an increase in health coverage among mothers before and during pregnancy, as well as earlier initiation of prenatal care.
- A synthesis of peer-reviewed literature that concluded that states' expansions for pregnancy eligibility in the 1980s contributed to "improvements in prenatal care use,"
- Having continuous insurance coverage facilitates a woman's access to care before, during, and after pregnancy. Access to care before and after pregnancy helps women obtain care for some of the conditions that might put them at risk for maternal mortality and morbidity, including heart disease, diabetes, and depression just to name a few. Research finds that insurance "churning" is common among low-income women around the time of pregnancy, with one-third of women who had recently given birth experiencing a change in insurance status or type during the perinatal period. However, this phenomenon was more pronounced in non-expansion states. In particular, more than one in five mothers in non-expansion states became uninsured during the postpartum period, three times the rate as expansion states.
- According to the Maternal and Infant Health Assessment (MIHA), one in five postpartum women in California experience symptoms of depression during or after pregnancy. California has approved a policy to extend Medicaid coverage for a year to any individual with a maternal mental health condition. For a new mother who needs medications, for example, to manage postpartum depression, this extension of coverage could fill an otherwise unaffordable gap, particularly since Medicaid would not impose cost sharing charges. Furthermore, in 2016 CMS approved coverage of postpartum depression screening for women during well child visits. Under this initiative, if the woman is enrolled in Medicaid, treatment services can be covered under Medicaid. If a woman is uninsured, for example in a non-expansion state, in order for Medicaid to cover the treatment under the child, the treatment must involve the child, such as family therapy.
- In a survey of women of reproductive age in Michigan covered by Medicaid expansion, the expansion was associated with improved access to family planning services, which may enable low-income women to plan and space pregnancies, obtain preconception and interconception care, and acquire postpartum contraception.

For women, the Medicaid program offers coverage of a wide range of primary, preventive, specialty, and long-term care services that are important to them across their lifespans. Given the critical lifeline that Medicaid provides for low-income women and their families, changes to the program financing and structure have significant implications for low-income women's access to coverage and care.

Question 2: An issue that must be addressed in the fight to reduce the rate of maternal mortality is eliminating doctor's implicit biases, as well as having doctors more effectively listening to patient's concerns. The National Partnership for Women and Families conducted a survey and issued a report entitled Listening to Latina Mothers in California. One finding that stood out to me was almost one-third of Latina mothers reported that they did not feel that the delivery room staff encouraged them to make decisions about how they wanted their births to progress, while only 21 percent of white women said they felt this way.

2. **How can we ensure that doctors more effectively listen to their patients, and take their patient's concerns to heart?**

Response 2. As this topic is outside my area of expertise, I would refer you to the following resources on this topic:

- Black Mamas Matter Alliance (BMMA)
- National Birth Equity Collaborative
- McLemore, M., "To Prevent Women from Dying in Childbirth, First Stop Blaming Them," *Scientific American*, May 1, 2019.
- Council on Patient Safety in Women's Health Care. Reduction of Peripartum Racial/Ethnic Disparities (+AIM), October 2016.

Question 3: The California state Department of Public Health calculates that between 2006 and 2013, California lowered its maternal mortality rate by 55 percent. To do this, they created a - pregnancy-related mortality review board to examine the causes of every death, and developed comprehensive "how to" manuals detailing the best practices to address specific medical complications. While other states have implemented similar programs, they haven't had the same success as California.

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3. **Based off California's success, what can be done to help other states be as effective in reducing their rates of maternal mortality?**

Response 3: In contrast to the rest of the nation, the rates of maternal mortality in California declined by 55% between 2006 and 2013. The California Maternal Quality Care Collaborative (CMQCC) has been a leader in efforts to improve maternal health quality in the state. In their recent article, the leaders of CMQCC identify four key steps in their work:

1) "engage as many disciplines and partner organizations as possible;
2) mobilize low-burden data to create a rapid-cycle data center to support the quality improvement efforts;
3) provide up-to-date guidance for implementation using safety bundles and tool kits;
4) make available coaching and peer learning to support implementation through multihospital quality collaboratives."

For more information about the maternal health care quality efforts and trends in California, I would suggest you contact the staff at CMQCC.

I would add that in addition to the delivery system reforms, California is a Medicaid expansion state, providing continuous coverage to all qualifying individuals up to 138% of poverty. This means that most pregnant women on Medicaid in California have a pathway to coverage after pregnancy, either through Medicaid or with subsidies for private insurance by through the ACA Marketplace. In non-expansion states, many women are dropped from Medicaid after 60 days postpartum. In expansion states, the federal government pays 90% of the expansion costs.