NICHQ National Institute for Children's Health Quality

Insights

Connecting Infant and Maternal Health Outcomes

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Domonique: November is Prematurity Awareness Month. Preterm birth is the leading cause of infant mortality, which saw an unprecedented 3% increase from 2021 to 2022, according to the Centers for Disease Control. About 1 in 10 babies are born preterm or before 37 to 40 weeks of pregnancy. In addition to these babies missing out on the important growth and development that happens in the final weeks, preterm birth is associated with higher rates of maternal morbidity and mortality. Public health professionals and care providers can work together to reduce preterm birth rates and improve health outcomes for infants and mothers and birthing people.

Today, we'll be joined by NICHQ VP of Equity and Innovation Dr. Stacy Scott, Ph.D. D, MPA, who will share some equity considerations regarding disparate rates of preterm birth, infant mortality, and maternal mortality. We will also hear from Dr. Zsakeba Henderson, MD, FACOG, NICHQ's senior health advisor, who connects the impact of maternal health on infant health outcomes while shining a light on the U.S. maternal mortality crisis and current policy initiatives that can help reverse maternal mortality trends.

Domonique: There are disparate rates of preterm birth for Black, Indigenous, and other people of color. Dr. Scott provides insight on some of the many contributing factors in these outcomes including low birth weight, social determinants of health, and structural racism.

Stacy Scott: Number one, we see that low birth weight would probably be a big contributor if you would look at it from the standpoint that Black women have the highest rate of premature birth, and premature infants are at a big risk of infant mortality as a result of that. Of course, there's a lot of other things that come into play. But one of the biggest things that we've been discussing few years is really the impact of racism and all of these structural things that go on within systems that really do impact not only infant mortality but maternal mortality as well.

Domonique: A new Vital Statistics Rapid Release report from the National Center for Health Statistics shows that the provisional infant mortality rate for the United States in 2022 rose 3%

from 2021, the first year-to-year increase in the rate since 2001 to 2002. As we reflect on the data, Dr. Scott shares a few equity considerations to note.

Stacy Scott: I was really surprised to see that the rates did increase. I know we had a lot of things going on during the time period, number one, COVID. A lot of people were making reference that COVID had something to do with the increase. But what is surprising is that the rates increased across all populations, not only just Black infants but all the way across with the exception of Asian, non-Hispanic. We see an increase in both neo-Natal deaths as well as post-natal deaths. And so, to really take a deep dive into that, it would be very interesting. However, right now, it's all provisional data. So, I really can't discern exactly what are some of the things that can contribute. But I'm quite sure in the next few months, we'll hear more and more about some of the issues that we see. There were some key indicators that we saw. Again, infants that were born to American Indians and Alaska Natives and white women did increase. We saw, again, preterm birth also increasing. There was a bigger rise in male infants dying.

And there were some keys for states that had the biggest increase, which were Georgia, Iowa, Missouri, and Texas. And so, and the top two leading causes of death, what we saw also is, I'm sorry, mortality rates increased in maternal complications and bacteria sepsis. So, again, these are all preliminary. And this is coming from the report. Being able to see what some of these causes are will be very interesting, as time goes on.

Domonique: Better care for mothers and birthing people will improve outcomes for babies. Dr. Scott provides insight into the impact of maternal health on infant health outcomes and highlights how focusing on providing equitable access to quality care can help ensure more mothers and birthing people carry to full term.

Stacy Scott: I'm just going to go deep here in the say and looking at, especially from a black feminist theory and a framework that the fact that if you address the impact of black women and black infants and really figure out what is causing some of the despair race that we see, by improving them, it will improve it for all. I think that we look at that framework a lot of times, you know people say well why you concentrate on this particular race and not the other, you know And you can talk about all the targeted universal framework that exists out here in regards to You want to look at the population who has the worst impact because by doing that and improving it for them Everybody will benefit from that So as we've looked at over the years around what causes disparities in infant mortality, why do we see more black babies dying than white babies? When we look at SIDS (Sudden Infant Death Syndrome) rates, sudden unexpected infant death, all of these things in working to better educate the community to really address what is some of the structural biases that operate within the systems, they navigate is really important as we look at not only infant mortality but maternal mortality and the dyad between the two. In recent years, we've concentrated greatly on maternal health, and it is so vitally important, as we can see, even as it's impacting the rates of infant mortality. But I think sometimes we could also look at that as a dyad, that they come together. And how do we look to improve both maternal and child health, maternal and infant health in the whole scheme of things?

Domonique: As we continue our focus on improving maternal health care, we will dive deeper into U.S. maternal mortality trends with Dr. Zsakeba Henderson, NICHQ’s Senior Health Advisor,

who provides some background about the U.S. maternal mortality crisis and what health professionals can do to help improve.

Keba Henderson: The main thing I want to start off and to highlight is one, it's a problem. Maternal mortality is increasing in our country, and we are the only industrialized nation where the maternal mortality rate is increasing and not decreasing.

We're also the one industrialized nation that has the highest rate among wealthy nations. And the other point I want to raise is while we talk about statistics around maternal mortality, these numbers represent real people. They represent someone's family member, someone's child, someone's mother, partner, sibling, friend.

The other thing I want to highlight is the fact that maternal health and maternal mortality are not something that happens separately from infant health and infant mortality, that mom's health and infant's health are inextricably linked. Whenever we talk about infant health or child health, we have to remember that we need to optimize mom's health to make sure that families are healthy as a whole.

Domonique: Dr. Henderson pointed out how social, political, and systemic factors affect these linked outcomes for infant health and maternal health.

Keba Henderson: We talk about different causes and the drivers of maternal health. It's very complex. There are many factors that are interconnected. Health care, however, only accounts for about 20 percent of the health outcomes that we see.

The other 80% are those social things, those things that contribute to where people work, where people eat, sleep, play – all of these factors do not impact mom and baby's health in a vacuum. They're interconnected. For example, quality of care is dependent on the workforce and access, and people come to the health care system with certain preexisting health conditions, and their social determinants in fact impact their health.

So, the political and systemic factors also impact moms' and babies' health, including issues around systemic and structural, uh, racism. When thinking about some of these other factors and how where people live matters, the Maternal Vulnerability Index, is the first county-level, national-scale tool to identify where and why moms in the United States are vulnerable to poor pregnancy outcomes and pregnancy-related deaths. The MVI includes not only widely known clinical risk factors, but also includes social, contextual, and environmental factors that are essential influencers of health outcomes– including access to health care.

Differences in counties are measured using numerous factors broken into six main themes and those six themes include reproductive health care, physical health, mental health, and substance abuse. The main point I want to get across here is that where people live matters. And the social and political determinants of where people live matter.

Domonique: While efforts to reverse maternal mortality trends persist, Dr. Henderson shares some national and state improvement efforts and policy initiatives aimed at reversing maternal mortality trends.

Keba Henderson: There are three main categories of state policies to improve maternal health, including coverage and benefits, care delivery transformation, and data and oversight. Under the category of coverage and benefits, there are many policies, and I want to first give a disclaimer that this is not an exhaustive list, but these are Some key policies that are really important and areas of focus for much of the advocacy that is going on for maternal health right now in our country that have been considered and put forward within states and many that have already been enacted.

Under coverage and benefits, there are many policies that impact how people receive care and have access to care, having coverage, and that includes access to telehealth, postpartum coverage, having access to health care outside of the hospital setting, including freestanding birth centers, having access to nonclinical services such as doula care, access to midwifery care, access for immigrants, access based on presumptive eligibility, high-risk subpopulations, and education for enrollees. I wanted to focus on postpartum coverage expansion because more than 50 percent of maternal deaths happen in the postpartum period. There are many states that have taken steps to advance legislation that would extend Medicaid eligibility until six months or up to one year after the birth or the end of the pregnancy. There are 36 states that have already enacted this legislation, there are several more that are in the process, and there are only a few that have not enacted postpartum Medicaid coverage up to a year postpartum. The other policy around freestanding birth centers – freestanding birth center is a health care facility that uses a midwifery model of care to provide services during pregnancy labor and delivery, and the postpartum period and freestanding birth centers are not connected to or affiliated with hospitals. The Affordable Care Act required that states provide Medicaid reimbursement for birth center facility service fees and professional fees of the birth attendant. However, there are several issues and challenges within states for birth centers to function.

For example, there was recent litigation in the state of Alabama around the ability for birth centers to remain open and receive the licensing to function within the state. And there are many other states that are having similar issues. Another area of policy under coverage and benefits include coverage for doula services. Doulas are non-clinical support providers that provide support to pregnant moms and families during pregnancy, during the birth hospitalization, and also in the postpartum period. They provide emotional and physical support to women during the perinatal period. Increased access to doula support can help improve birth outcomes.

We have data that supports that. Also, their support reduces the higher rates of maternal morbidity and mortality among women of color in the U.S. Doula care is associated with reduced cesarean births and increased successful vaginal deliveries. But in many states, doula support is not routinely covered by health insurance.

Currently, there are 11, 10 states plus DC, where there is currently Medicaid coverage for doula services and many other states are working on policies to support coverage for doula services. Lastly, I wanted to highlight coverage for midwifery services. The Affordable Care Act mandated Medicaid programs to provide access to midwives. Midwifery services include a full range of primary healthcare services for women, from adolescents to beyond menopause. However, midwives often are not compensated for the level of care that they provide, so there's a lot of advocacy around midwifery coverage being reimbursed, but also policies around the autonomy of midwifery practice.

We know based on evidence from within the U. S. and abroad that midwifery care is associated with improved outcomes, and lower intervention, and we know that countries that have better outcomes for moms and babies have larger midwifery workforces that are the main primary source of healthy pregnancy care.

Domonique: For many pregnant people in the U.S. there is a significant difference between coverage of delivery services and access to care providers.

Keba Henderson: It's important to have access to Medicaid coverage. You can have access to care in terms of insurance coverage, but then there's a whole issue of having access to care providers and places that provide delivery services to birthing people. And in the U.S., there is a real problem with having access to care providers. A maternity care desert is a county that has no midwife, no obstetrician, and no hospital that provides maternity care services for delivery. And in our country, unfortunately, almost half of the counties in our country are considered maternity care deserts, and there are others that also have limited access to care. So, policies on maternal health care reimbursement also should add focus on making community birth sustainable – recognizing that we need all of the different services that are available for moms to receive high-quality and culturally congruent care.

Aside from coverage for delivery and access to delivery care, there is a whole set of policies focused on care delivery and models of care delivery.

States provide person-centered models of maternity care delivery, including pregnancy, medical homes, group, prenatal care, care coordination and case management and maternity models of care delivery, provide coordinated services from an interdisciplinary team of clinicians and health care workers for pregnant people, and these include the midwifery-led model of care. There are also policies around payment reform where states are adjusting financial incentives, for example, reduced payment for medically unnecessary cesarean sections for providers to improve maternal health outcomes and increase access to pregnancy-related and postpartum care.

There are also policies around enhancing the maternity care workforce. This is something that is hugely needed in our country because there's an uneven distribution of obstetric services in the country and limited culturally competent care. Many states are working to improve obstetric care and maternal health outcomes by providing training and broadening the workforce that is able to provide maternity care.

Domonique: Lastly, Dr. Henderson shared about the movement to improve the quality of care and how care is delivered through initiatives like quality improvement collaboratives.

Keba Henderson: NICHQ has been very involved in this work, being the coordinating center for the National Network of Perinatal Quality Collaboratives.

A perinatal quality collaborative is a State or multi-state network of multidisciplinary teams that are working to improve measurable outcomes for moms and babies by advancing evidence-informed clinical practices, addressing gaps in care, spreading best practices, reducing variation, and optimizing resources to improve perinatal care and outcomes. The important thing to note is that perinatal quality collaboratives acknowledge the dyad and the fact that mom health and baby health are linked. These collaboratives look at both mom and baby. PQCs (Perinatal

Quality Collaboratives) use three main strategies, including collaborative learning, which is just sharing what works and what doesn't work, and having hospitals learn together how to work toward a common objective. They also use rapid response data. You can’t improve what you don't measure, so, having data to return to teams helps inform their improvement efforts. And then, quality improvement science support, which NICHQ has been very instrumental in providing support through the NNPQC (National Network of Perinatal Quality Collaboratives) to states in this area. The ultimate goal of PQCs is to improve population-level outcomes in maternal and infant health through the collective efforts of healthcare centers across the state. State PQCs have been very successful in these efforts, several states have documented successes in the literature, including improvements in the management and care of mothers with severe hypertension during pregnancy. They've also exhibited successes in mothers who are impacted by opioid use disorder by improving access to medication-assisted treatment. Another example is work that has been done to reduce serious pregnancy complications from obstetric hemorrhage, which is bleeding during pregnancy or delivery. These are just a few of the many examples across the country where this improvement work has been successful.
The last category I'll discuss is data and oversight. There are separate sets of policies that specifically focus on improving our data to inform efforts to improve care and outcomes for moms across the country.

That includes advisory councils, councils, maternal mortality review, having race-stratified data. Improving access to research and improving the knowledge we have about specific conditions that impact moms during pregnancy and the postpartum period. Enhancing data collection and allowing data to be more up to date and current and available and recognition resolutions.

Maternal mortality review committees are responsible for investigating pregnancy-related mortality and morbidity and developing comprehensive recommendations for states and legislators to reduce future deaths. They work in partnership with state collaboratives. They provide data that helps state perinatal quality collaboratives prioritize their efforts. Race-stratified data is another area where there are growing policy efforts to require analysis and collection of data by race and ethnicity that are linked to health outcomes so that we can identify similarities and differences between races. States are requiring managed care organizations to now collect race-stratified data. Then there's the overall need, of course, of getting more timely data. There are policy measures requiring states to include reporting requirements to enhance data collection for performance improvement and quality measures.