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## Why America's Black Mothers and Babies Are in a Life-or-Death Crisis

The answer to the disparity in death rates has everything to do with the lived experience of being a black woman in America.

By LINDA VILLAROSA APRIL 11, 2018

hen Simone Landrum felt tired and both nauseated and ravenous at the same time in the spring of 2016, she recognized the signs of pregnancy. Her beloved grandmother died earlier that year, and Landrum felt a sense of divine order when her doctor confirmed on Muma's birthday that she was carrying a girl. She decided she would name her daughter Harmony. "I pictured myself teaching my daughter to sing," says Landrum, now 23, who lives in New Orleans. "It was something I thought we could do together."

But Landrum, who was the mother of two young sons, noticed something different about this pregnancy as it progressed. The trouble began with constant headaches and sensitivity to light; Landrum described the pain as "shocking." It would have been reasonable to guess that the crippling headaches had something to do with stress: Her relationship with her boyfriend, the baby's father, had become increasingly contentious and eventually physically violent. Three months into her pregnancy, he became angry at her for wanting to hang out with friends and threw her to the ground outside their apartment. She scrambled to her feet, ran inside and called the police. He continued to pursue her, so she grabbed a knife. "Back up — I have a baby," she screamed. After the police arrived, he was arrested and charged with multiple offenses, including battery. He was released on bond pending a trial

that would not be held until the next year. Though she had broken up with him several times, Landrum took him back, out of love and also out of fear that she couldn't support herself, her sons and the child she was carrying on the paycheck from her waitress gig at a restaurant in the French Quarter.

As her January due date grew closer, Landrum noticed that her hands, her feet and even her face were swollen, and she had to quit her job because she felt so ill. But her doctor, whom several friends had recommended and who accepted Medicaid, brushed aside her complaints. He recommended Tylenol for the headaches. "I am not a person who likes to take medicine, but I was always popping Tylenol," Landrum says. "When I told him my head still hurt, he said to take more."

At a prenatal appointment a few days before her baby shower in November, Landrum reported that the headache had intensified and that she felt achy and tired. A handwritten note from the appointment, sandwiched into a printed file of Landrum's electronic medical records that she later obtained, shows an elevated blood-pressure reading of 143/86. A top number of 140 or more or a bottom number higher than 90, especially combined with headaches, swelling and fatigue, points to the possibility of pre-eclampsia: dangerously high blood pressure during pregnancy.

High blood pressure and cardiovascular disease are two of the leading causes of maternal death, according to the Centers for Disease Control and Prevention, and hypertensive disorders in pregnancy, including pre-eclampsia, have been on the rise over the past two decades, increasing 72 percent from 1993 to 2014. A Department of Health and Human Services report last year found that pre-eclampsia and eclampsia (seizures that develop after pre-eclampsia) are 60 percent more common in African-American women and also more severe. Landrum's medical records note that she received printed educational material about pre-eclampsia during a prenatal visit. But Landrum would comprehend the details about the disorder only months later, doing online research on her own.

When Landrum complained about how she was feeling more forcefully at the appointment, she recalls, her doctor told her to lie down — and calm down. She says that he also warned her that he was planning to go out of town and told her that he could deliver the baby by C-section that day if she wished, six weeks before her early-

January due date. Landrum says it seemed like an ultimatum, centered on his schedule and convenience. So she took a deep breath and lay on her back for 40 minutes until her blood pressure dropped within normal range. Aside from the handwritten note, Landrum's medical records don't mention the hypertensive episode, the headaches or the swelling, and she says that was the last time the doctor or anyone from his office spoke to her. "It was like he threw me away," Landrum says angrily.

Four days later, Landrum could no longer deny that something was very wrong. She was suffering from severe back pain and felt bone-tired, unable to get out of bed. That evening, she packed a bag and asked her boyfriend to take her sons to her stepfather's house and then drive her to the hospital. In the car on the way to drop off the boys, she felt wetness between her legs and assumed her water had broken. But when she looked at the seat, she saw blood. At her stepfather's house, she called 911. Before she got into the ambulance, Landrum pulled her sons close. "Mommy loves you," she told them, willing them to stay calm. "I have to go away, but when I come back I will have your sister."

By the time she was lying on a gurney in the emergency room of Touro Infirmary, a hospital in the Uptown section of New Orleans, the splash of blood had turned into a steady stream. "I could feel it draining out of me, like if you get a jug of milk and pour it onto the floor," she recalls. Elevated blood pressure — Landrum's medical records show a reading of 160/100 that day — had caused an abruption: the separation of the placenta from her uterine wall.

With doctors and nurses hovering over her, everything became both hazy and chaotic. When a nurse moved a monitor across her belly, Landrum couldn't hear a heartbeat. "I kept saying: 'Is she O.K.? Is she all right?' "Landrum recalls. "Nobody said a word. I have never heard a room so silent in my life." She remembers that the emergency-room doctor dropped his head. Then he looked into her eyes. "He told me my baby was dead inside of me. I was like: What just happened? Is this a dream? And then I turned my head to the side and threw up."

Sedated but conscious, Landrum felt her mind growing foggy. "I was just so tired," she says. "I felt like giving up." Then she pictured the faces of her two young

sons. "I thought, Who's going to take care of them if I'm gone?" That's the last thing she recalls clearly. When she became more alert sometime later, a nurse told her that she had almost bled to death and had required a half dozen units of transfused blood and platelets to survive. "The nurse told me: 'You know, you been sick. You are very lucky to be alive,' "Landrum remembers. "She said it more than once."

A few hours later, a nurse brought Harmony, who had been delivered stillborn via C-section, to her. Wrapped in a hospital blanket, her hair thick and black, the baby looked peaceful, as if she were dozing. "She was so beautiful — she reminded me of a doll," Landrum says. "I know I was still sedated, but as I held her, I kept looking at her, thinking, Why doesn't she wake up? I tried to feel love, but after a while I got more and more angry. I thought, Why is God doing this to me?"

The hardest part was going to pick up her sons empty-handed and telling them that their sister had died. "I felt like I failed them," Landrum says, choking up. "I felt like someone had taken something from me, but also from them."

In 1850, when the death of a baby was simply a fact of life, and babies died so often that parents avoided naming their children before their first birthdays, the United States began keeping records of infant mortality by race. That year, the reported black infant-mortality rate was 340 per 1,000; the white rate was 217 per 1,000. This black-white divide in infant mortality has been a source of both concern and debate for over a century. In his 1899 book, "The Philadelphia Negro," the first sociological case study of black Americans, W.E.B. Du Bois pointed to the tragedy of black infant death and persistent racial disparities. He also shared his own "sorrow song," the death of his baby son, Burghardt, in his 1903 masterwork, "The Souls of Black Folk."

From 1915 through the 1990s, amid vast improvements in hygiene, nutrition, living conditions and health care, the number of babies of all races who died in the first year of life dropped by over 90 percent — a decrease unparalleled by reductions in other causes of death. But that national decline in infant mortality has since slowed. In 1960, the United States was ranked 12th among developed countries in infant mortality. Since then, with its rate largely driven by the deaths of black babies, the United States has fallen behind and now ranks 32nd out of the 35 wealthiest nations.

Low birth weight is a key factor in infant death, and a new report released in March by the Robert Wood Johnson Foundation and the University of Wisconsin suggests that the number of low-birth-weight babies born in the United States — also driven by the data for black babies — has inched up for the first time in a decade.

Black infants in America are now more than twice as likely to die as white infants — 11.3 per 1,000 black babies, compared with 4.9 per 1,000 white babies, according to the most recent government data — a racial disparity that is actually wider than in 1850, 15 years before the end of slavery, when most black women were considered chattel. In one year, that racial gap adds up to more than 4,000 lost black babies. Education and income offer little protection. In fact, a black woman with an advanced degree is more likely to lose her baby than a white woman with less than an eighth-grade education.

This tragedy of black infant mortality is intimately intertwined with another tragedy: a crisis of death and near death in black mothers themselves. The United States is one of only 13 countries in the world where the rate of maternal mortality — the death of a woman related to pregnancy or childbirth up to a year after the end of pregnancy — is now worse than it was 25 years ago. Each year, an estimated 700 to 900 maternal deaths occur in the United States. In addition, the C.D.C. reports more than 50,000 potentially preventable near-deaths, like Landrum's, per year — a number that rose nearly 200 percent from 1993 to 2014, the last year for which statistics are available. Black women are three to four times as likely to die from pregnancy-related causes as their white counterparts, according to the C.D.C. — a disproportionate rate that is higher than that of Mexico, where nearly half the population lives in poverty — and as with infants, the high numbers for black women drive the national numbers.

Monica Simpson is the executive director of SisterSong, the country's largest organization dedicated to reproductive justice for women of color, and a member of the Black Mamas Matter Alliance, an advocacy group. In 2014, she testified in Geneva before the United Nations Committee on the Elimination of Racial Discrimination, saying that the United States, by failing to address the crisis in black maternal mortality, was violating an international human rights treaty. After her testimony, the committee called on the United States to "eliminate racial disparities

in the field of sexual and reproductive health and standardize the data-collection system on maternal and infant deaths in all states to effectively identify and address the causes of disparities in maternal- and infant-mortality rates." No such measures have been forthcoming. Only about half the states and a few cities maintain maternal-mortality review boards to analyze individual cases of pregnancy-related deaths. There has not been an official federal count of deaths related to pregnancy in more than 10 years. An effort to standardize the national count has been financed in part by contributions from Merck for Mothers, a program of the pharmaceutical company, to the CDC Foundation.

The crisis of maternal death and near-death also persists for black women across class lines. This year, the tennis star Serena Williams shared in Vogue the story of the birth of her first child and in further detail in a Facebook post. The day after delivering her daughter, Alexis Olympia, via C-section in September, Williams experienced a pulmonary embolism, the sudden blockage of an artery in the lung by a blood clot. Though she had a history of this disorder and was gasping for breath, she says medical personnel initially ignored her concerns. Though Williams should have been able to count on the most attentive health care in the world, her medical team seems to have been unprepared to monitor her for complications after her cesarean, including blood clots, one of the most common side effects of C-sections. Even after she received treatment, her problems continued; coughing, triggered by the embolism, caused her C-section wound to rupture. When she returned to surgery, physicians discovered a large hematoma, or collection of blood, in her abdomen, which required more surgery. Williams, 36, spent the first six weeks of her baby's life bedridden.

The reasons for the black-white divide in both infant and maternal mortality have been debated by researchers and doctors for more than two decades. But recently there has been growing acceptance of what has largely been, for the medical establishment, a shocking idea: For black women in America, an inescapable atmosphere of societal and systemic racism can create a kind of toxic physiological stress, resulting in conditions — including hypertension and pre-eclampsia — that lead directly to higher rates of infant and maternal death. And that societal racism is further expressed in a pervasive, longstanding racial bias in health care — including

the dismissal of legitimate concerns and symptoms — that can help explain poor birth outcomes even in the case of black women with the most advantages.

"Actual institutional and structural racism has a big bearing on our patients' lives, and it's our responsibility to talk about that more than just saying that it's a problem," says Dr. Sanithia L. Williams, an African-American OB-GYN in the Bay Area and a fellow with the nonprofit organization Physicians for Reproductive Health. "That has been the missing piece, I think, for a long time in medicine."

After Harmony's death, Landrum's life grew more chaotic. Her boyfriend blamed her for what happened to their baby and grew more abusive. Around Christmas 2016, in a rage, he attacked her, choking her so hard that she urinated on herself. "He said to me, 'Do you want to die in front of your kids?' "Landrum said, her hands shaking with the memory.

Then he tore off her clothes and sexually assaulted her. She called the police, who arrested him and charged him with second-degree rape. Landrum got a restraining order, but the district attorney eventually declined to prosecute. She also sought the assistance of the New Orleans Family Justice Center, an organization that provides advocacy and support for survivors of domestic violence and sexual assault. Counselors secreted her and her sons to a safe house, before moving them to a more permanent home early last year.

Landrum had a brief relationship with another man and found out in March 2017 that she was pregnant again and due in December. "I'm not going to lie; though I had a lot going on, I wanted to give my boys back the sister they had lost," Landrum said, looking down at her lap. "They don't forget. Every night they always say their prayers, like: 'Goodnight, Harmony. Goodnight, God. We love you, sister.'" She paused and took a breath. "But I was also afraid, because of what happened to me before."

Early last fall, Landrum's case manager at the Family Justice Center, Mary Ann Bartkowicz, attended a workshop conducted by Latona Giwa, the 31-year-old cofounder of the Birthmark Doula Collective. The group's 12 racially diverse birth doulas, ages 26 to 46, work as professional companions during pregnancy and childbirth and for six weeks after the baby is born, serving about 400 clients across

New Orleans each year, from wealthy women who live in the upscale Garden District to women from the Katrina-ravaged Lower Ninth Ward and other communities of color who are referred through clinics, school counselors and social-service organizations. Birthmark offers pro bono services to these women in need.

Right away, the case manager thought of her young, pregnant client. Losing her baby, nearly bleeding to death and fleeing an abusive partner were only the latest in a cascade of harrowing life events that Landrum had lived through since childhood. She was 10 when Hurricane Katrina devastated New Orleans in 2005. She and her family first fled to a hotel and then walked more than a mile through the rising water to the Superdome, where thousands of evacuees were already packed in with little food, water or space. She remembers passing Charity Hospital, where she was born. "The water was getting deeper and deeper, and by the end, I was on my tippy-toes, and the water was starting to go right by my mouth," Landrum recalls. "When I saw the hospital, honestly I thought, I'm going to die where I was born." Landrum wasn't sure what doulas were, but once Bartkowicz explained their role as a source of support and information, she requested the service. Latona Giwa would be her doula.

Giwa, the daughter of a white mother and a Nigerian immigrant father, took her first doula training while she was still a student at Grinnell College in Iowa. She moved to New Orleans for a fellowship in community organizing before getting a degree in nursing. After working as a labor and delivery nurse and then as a visiting nurse for Medicaid clients in St. Bernard Parish, an area of southeast New Orleans where every structure was damaged by Katrina floodwaters, she devoted herself to doula work and childbirth education. She founded Birthmark in 2011 with Dana Keren, another doula who was motivated to provide services for women in New Orleans who most needed support during pregnancy but couldn't afford it.

"Being a labor and delivery nurse in the United States means seeing patients come in acute medical need, because we haven't been practicing preventive and supportive care all along," Giwa says. Louisiana ranks 44th out of all 50 states in maternal mortality; black mothers in the state die at 3.5 times the rate of white mothers. Among the 1,500 clients the Birthmark doulas have served since the collective's founding seven years ago, 10 infant deaths have occurred, including late-

term miscarriage and stillbirth, which is lower than the overall rate for both Louisiana and the United States, as well as the rates for black infants. No mothers have died.

A scientific examination of 26 studies of nearly 16,000 subjects first conducted in 2003 and updated last year by Cochrane, a nonprofit network of independent researchers, found that pregnant women who received the continuous support that doulas provide were 39 percent less likely to have C-sections. In general, women with continuous support tended to have babies who were healthier at birth. Though empirical research has not yet linked doula support with decreased maternal and infant mortality, there are promising anecdotal reports. Last year, the American College of Obstetricians and Gynecologists released a statement noting that "evidence suggests that, in addition to regular nursing care, continuous one-to-one emotional support provided by support personnel, such as a doula, is associated with improved outcomes for women in labor."

In early November, the air was thick with humidity as Giwa pulled up to Landrum's house, half of a wood-frame duplex, for their second meeting. Landrum opened the door, happy to see the smiling, fresh-faced Giwa, who at first glance looked younger than her 23-year-old client. Giwa would continue to meet with Landrum weekly until her Dec. 22 due date, would be with her during labor and delivery and would make six postpartum home visits to assure that both mother and baby son remained healthy. Landrum led Giwa through her living room, which was empty except for a tangle of disconnected cable cords. She had left most of her belongings behind — including her dog and the children's new Christmas toys — when she fled from her abusive boyfriend, and she still couldn't afford to replace all her furniture.

They sat at the kitchen table, where Giwa asked about Landrum's last doctor visit, prodding her for details. Landrum reassured her that her blood pressure and weight, as well as the baby's size and position, were all on target.

"Have you been getting rid of things that are stressful?" Giwa asked, handing her a tin of lavender balm, homemade from herbs in her garden. "I'm trying not to be worried, but sometimes. ..." Landrum said haltingly, looking down at the table as her hair, tipped orange at the ends, brushed her shoulders. "I feel like my heart is so anxious."

Taking crayons from her bag, Giwa suggested they write affirmations on sheets of white paper for Landrum to post around her home, to see and remind her of the good in her life. Landrum took a purple crayon, her favorite color, and scribbled in tight, tiny letters. But even as she wrote the affirmations, she began to recite a litany of fears: bleeding again when she goes into labor, coming home empty-handed, dying and leaving her sons motherless. Giwa leaned across the table, speaking evenly. "I know that it was a tragedy and a huge loss with Harmony, but don't forget that you survived, you made it, you came home to your sons," she said. Landrum stopped writing and looked at Giwa.

"If it's O.K., why don't I write down something you told me when we talked last time?" Giwa asked. Landrum nodded. "I know God has his arms wrapped around me and my son," Giwa wrote in large purple letters, outlining "God" and "arms" in red, as Landrum watched. She took out another sheet of paper and wrote, "Harmony is here with us, protecting us." After the period, she drew two purple butterflies.

Landrum's eyes locked on the butterflies. "Every day, I see a butterfly, and I think that's her. I really do," she said, finally smiling, her large, dark eyes crinkling into half moons. "I like that a lot, because I think that's something that I can look at and be like, Girl, you going to be O.K."

With this pregnancy, Landrum was focused on making sure everything went right. She had switched to a new doctor, a woman who specialized in high-risk pregnancies and accepted Medicaid, and she would deliver this baby at a different hospital. Now she asked Giwa to review the birth plan one more time.

"On Nov. 30, I go on call, and that means this phone is always on me," Giwa said, holding up her iPhone.

"What if. ..." Landrum began tentatively.

"I'm keeping a backup doula informed of everything," Giwa said. "Just in case."

"I think everything's going to be O.K. this time," Landrum said. But it sounded like a question.

When the black-white disparity in infant mortality first became the subject of study, discussion and media attention more than two decades ago, the high rate of infant death for black women was widely believed by almost everyone, including doctors and public-health experts, to affect only poor, less-educated women — who do experience the highest numbers of infant deaths. This led inevitably to blaming the mother. Was she eating badly, smoking, drinking, using drugs, overweight, not taking prenatal vitamins or getting enough rest, afraid to be proactive during prenatal visits, skipping them altogether, too young, unmarried?

At Essence magazine, where I was the health editor from the late '80s to the mid-'90s, we covered the issue of infant mortality by encouraging our largely middle-class black female readers to avoid unwanted pregnancy and by reminding them to pay attention to their health habits during pregnancy and make sure newborns slept on their backs. Because the future of the race depended on it, we also promoted a kind of each-one-teach-one mentality: Encourage teenagers in your orbit to just say no to sex and educate all the "sisters" in your life (read: your less-educated and less-privileged friends and family) about the importance of prenatal care and healthful habits during pregnancy.

In 1992, I was a journalism fellow at the Harvard T.H. Chan School of Public Health. One day a professor of health policy, Dr. Robert Blendon, who knew I was the health editor of Essence, said, "I thought you'd be interested in this." He handed me the latest issue of The New England Journal of Medicine, which contained what is now considered the watershed study on race, class and infant mortality. The study, conducted by four researchers at the C.D.C. — Kenneth Schoendorf, Carol Hogue, Joel Kleinman and Diane Rowley — mined a database of close to a million previously unavailable linked birth and death certificates and found that infants born to college-educated black parents were twice as likely to die as infants born to similarly educated white parents. In 72 percent of the cases, low birth weight was to blame. I was so surprised and skeptical that I peppered him with the kinds of questions about medical research that he encouraged us to ask in his course. Mainly I wanted to

know *why*. "No one knows," he told me, "but this might have something to do with stress."

Though I wouldn't learn of her work until years later, Dr. Arline Geronimus, a professor in the department of health behavior and health education at the University of Michigan School of Public Health, first linked stress and black infant mortality with her theory of "weathering." She believed that a kind of toxic stress triggered the premature deterioration of the bodies of African-American women as a consequence of repeated exposure to a climate of discrimination and insults. The weathering of the mother's body, she theorized, could lead to poor pregnancy outcomes, including the death of her infant.

After graduating from the Harvard School of Public Health, Geronimus landed at Michigan in 1987, where she continued her research. That year, in a report published in the journal Population and Development Review, she noted that black women in their mid-20s had higher rates of infant death than teenage girls did — presumably because they were older and stress had more time to affect their bodies. For white mothers, the opposite proved true: Teenagers had the highest risk of infant mortality, and women in their mid-20s the lowest.

Geronimus's work contradicted the widely accepted belief that black teenage girls (assumed to be careless, poor and uneducated) were to blame for the high rate of black infant mortality. The backlash was swift. Politicians, media commentators and even other scientists accused her of promoting teenage pregnancy. She was attacked by colleagues and even received anonymous death threats at her office in Ann Arbor and at home. "At that time, which is now 25 or so years ago, there were more calls to complain about me to the University of Michigan, to say I should be fired, than had happened to anybody in the history of the university," recalls Geronimus, who went on to publish in 1992 what is now considered her seminal study on weathering and black women and infants in the journal Ethnicity and Disease.

By the late 1990s, other researchers were trying to chip away at the mystery of the black-white gap in infant mortality. Poverty on its own had been disproved to explain infant mortality, and a study of more than 1,000 women in New York and Chicago, published in The American Journal of Public Health in 1997, found that black women were less likely to drink and smoke during pregnancy, and that even when they had access to prenatal care, their babies were often born small.

Experts wondered if the high rates of infant death in black women, understood to be related to small, preterm babies, had a genetic component. Were black women passing along a defect that was affecting their offspring? But science has refuted that theory too: A 1997 study published by two Chicago neonatologists, Richard David and James Collins, in The New England Journal of Medicine found that babies born to new immigrants from impoverished West African nations weighed more than their black American-born counterparts and were similar in size to white babies. In other words, they were more likely to be born full term, which lowers the risk of death. In 2002, the same researchers made a further discovery: The daughters of African and Caribbean immigrants who grew up in the United States went on to have babies who were smaller than their mothers had been at birth, while the grandchildren of white European women actually weighed more than their mothers had at birth. It took just one generation for the American black-white disparity to manifest.

When I became pregnant in 1996, this research became suddenly real for me. When my Park Avenue OB-GYN, a female friend I trusted implicitly, discovered that my baby was far smaller than her gestational age would predict, even though I was in excellent health, she put me on bed rest and sent me to a specialist. I was found to have a condition called intrauterine growth restriction (IUGR), generally associated with mothers who have diabetes, high blood pressure, malnutrition or infections including syphilis, none of which applied to me. During an appointment with a perinatologist — covered by my excellent health insurance — I was hounded with questions about my "lifestyle" and whether I drank, smoked or used a vast assortment of illegal drugs. I wondered, Do these people think I'm sucking on a crack pipe the second I leave the office? I eventually learned that in the absence of a medical condition, IUGR is almost exclusively linked with mothers who smoke or abuse drugs and alcohol. As my pregnancy progressed but my baby didn't grow, my doctor decided to induce labor one month before my due date, believing that the baby would be healthier outside my body. My daughter was born at 4 pounds 13 ounces, classified as low birth weight. Though she is now a bright, healthy, athletic

college student, I have always wondered: Was this somehow related to the experience of being a black woman in America?

Though it seemed radical 25 years ago, few in the field now dispute that the black-white disparity in the deaths of babies is related not to the genetics of race but to the lived experience of race in this country. In 2007, David and Collins published an even more thorough examination of race and infant mortality in The American Journal of Public Health, again dispelling the notion of some sort of gene that would predispose black women to preterm birth or low birth weight. To make sure the message of the research was crystal clear, David, a professor of pediatrics at the University of Illinois, Chicago, stated his hypothesis in media-friendly but blunt-force terms in interviews: "For black women," he said, "something about growing up in America seems to be bad for your baby's birth weight."

**On a December** morning three days before her due date, Landrum went to the hospital for her last ultrasound before the birth. Because of the stillbirth the previous year, her doctor did not want to let the pregnancy go past 40 weeks, to avoid the complications that can come with post-term delivery, so an induction had been scheduled in 48 hours.

During Giwa's last prenatal visit, the day before, she explained to Landrum that she would be given Pitocin, a synthetic version of the natural hormone that makes the uterus contract during labor, to start her contractions. "Will inducing stress out the baby?" Landrum asked. "I can't lie; I used to wake up and scream, when I'd be dreaming about getting cut open again. I know my body is fine, and I'm healthy, but I don't want to die."

"I respect how honest you are, and your trauma is real," Giwa told her, slowing down her words. "But my hope for you is, this birth can be a part of your healing. Your uterus is injured and has been scarred, but you've pushed out two babies, so your body knows what it's doing."

Now, lying on the table, Landrum looked out the window, smiling as the sound of her baby's heartbeat filled the room. A few minutes later, the technician returned and looked at the monitor. The baby's heart rate appeared less like little mountains than chicken scratching. He was also either not moving consistently or not breathing

properly. A nurse left the room to call Landrum's doctor to get her opinion. The nurse returned in 20 minutes and gave Landrum the news that the baby would be induced not in two days but now. "We don't want to wait; we're going to get him out today," she said to Landrum.

"I'm very anxious," Landrum told Giwa on the phone as she walked to labor and delivery, a few floors up in the same hospital, "but I'm ready." An hour later, Giwa arrived, wearing purple scrubs, her cloth bag filled with snacks, lavender lotion and clary sage oil. She made sure the crayon-drawn affirmations were taped on the wall within Landrum's line of vision, then settled into a chair next to the bed, low-key but watchful. Though some doctors resent or even forbid the presence of a doula during labor and delivery — and some doulas overstep their roles and create conflict with doctors and nurses — Giwa says she and the other Birthmark doulas try to be unobtrusive and focused on what's best for the mother.

A medical resident, who was white, like all of the staff who would attend Landrum throughout her labor and delivery, walked into the room with paperwork. Right away, she asked Landrum briskly, "Have you had any children before?"

She hadn't read the chart.

"Yes, I've had three babies, but one died," Landrum explained warily, for the third time since she had arrived at the hospital that day. Her voice was flat. "I had a stillbirth."

"The demise was last year?" the resident asked without looking up to see Landrum stiffen at the word "demise."

"May I speak to you outside," Giwa said to the nurse caring for Landrum. In the hall, she asked her to please make a note in Landrum's chart about the stillbirth. "Each time she has to go over what happened, it brings her mind back to a place of fear and anxiety and loss," Giwa said later. "This is really serious. She's having a high-risk delivery, and I would hope that her care team would thoroughly review her chart before walking into her room."

One of the most important roles that doulas play is as an advocate in the medical system for their clients. "At the point a woman is most vulnerable, she has another set of ears and another voice to help get through some of the potentially traumatic decisions that have to be made," says Dána-Ain Davis, the director of the Center for the Study of Women and Society at the City University of New York, the author of a forthcoming book on pregnancy, race and premature birth and a black woman who is a doula herself. Doulas, she adds, " are a critical piece of the puzzle in the crisis of premature birth, infant and maternal mortality in black women."

Over the next 10 hours, Giwa left Landrum's side only briefly. About five hours in, Landrum requested an epidural. The anesthesiologist required all visitors to leave the room while it was administered. When Giwa returned about a half-hour later, Landrum was angry and agitated, clenching her fists and talking much faster than usual. She had mistakenly been given a spinal dose of anesthesia — generally reserved for C-sections performed in the operating room — rather than the epidural dose usually used in vaginal childbirth. Now she had no feeling at all in her legs and a splitting headache. When she questioned the incorrect dose of anesthesia, Landrum told Giwa, one nurse said, "You ask a lot of questions, don't you?" and winked at another nurse in the room and then rolled her eyes.

As Landrum loudly complained about what occurred, her blood pressure shot up, while the baby's heart rate dropped. Giwa glanced nervously at the monitor, the blinking lights reflecting off her face. "What happened was wrong," she said to Landrum, lowering her voice to a whisper. "But for the sake of the baby, it's time to let it go."

She asked Landrum to close her eyes and imagine the color of her stress.

"Red," Landrum snapped, before finally laying her head onto the pillow.

"What color is really soothing and relaxing?" Giwa asked, massaging her hand with lotion.

"Lavender," Landrum replied, taking a deep breath. Over the next 10 minutes, Landrum's blood pressure dropped within normal range as the baby's heart rate stabilized.

At 1 a.m., a team of three young female residents bustled into the room; the labor and delivery nurse followed them, flipping on the overhead light. They were accompanied by an older man Landrum had never seen. He briefly introduced himself as the attending physician before plunging his hand between Landrum's legs to feel for the baby. Landrum had been told that her OB-GYN might not deliver her infant, but a nurse had reassured her earlier in the day that if her doctor was not available, her doctor's husband, also an OB-GYN, would cover for her. This doctor, however, was not the husband, and no one explained the switch. Giwa raised an eyebrow. The Listening to Mothers Survey III, a national sampling of 2,400 women who gave birth in 2011 and 2012, found that more than a quarter of black women meet their birth attendants for the first time during childbirth, compared with 18 percent of white women.

"He's ready," the doctor said, snapping off his gloves. "It's time to push."

One resident stepped forward and took his place, putting her hand into Landrum's vagina, feeling for the baby. Landrum gripped the side of the bed and closed her eyes, grimacing. "You're a rock star," Giwa said. The nurse, standing at her side, told Landrum: "Push! Now. You can do it." After about 20 minutes of pushing, the baby's head appeared. "This is it," the nurse told her. "You can do this," Giwa whispered on her other side.

Landrum bore down and pushed again. "You're doing amazing," Giwa said, not taking her eyes away from Landrum. The attending physician left the room to put on a clean gown. Landrum breathed in, closed her eyes and pushed. More of the infant's head appeared, a slick cluster of black curls. The senior resident motioned to the third and most junior of the women, standing at her shoulder, and told her, "Here's your chance." The young resident took the baby's head and eased the slippery infant out. Landrum was oblivious to the procession of young residents taking turns between her legs or the fact that the attending physician wasn't in the room at all. She was sobbing, shaking, laughing — all at the same time — flooded with the kind of hysterical relief a woman feels when a baby leaves her body and emerges into the world.

The resident lay the infant, purple, wrinkled and still as a stone, on Landrum's bare chest. "Is he all right? Is he O.K.?" Landrum asked, panicking as she looked down at the motionless baby. A second later, his tiny arms and legs tensed, and he opened his mouth and let out a definitive cry.

"He's perfect," Giwa told her, touching her shoulder.

"I did it," Landrum said, looking up at Giwa and laying her hands on the baby's back, still coated with blood and amniotic fluid. She had decided to name him Kingston Blessed Landrum.

"Yes," Giwa said, finally allowing herself a wide smile. "You did."

**In 1995,** a pregnant African-American doctoral student had a preterm birth after her water broke unexpectedly at 34 weeks. Her baby was on a ventilator for 48 hours and a feeding tube for six days during his 10-day stay in the neonatal intensive-care unit.

The woman was part of a team of female researchers from Boston and Howard Universities working on the Black Women's Health Study, an ongoing examination, funded by the National Institutes of Health, of conditions like preterm birth that affect black women disproportionately. The team had started the study after they noticed that most large, long-term medical investigations of women overwhelmingly comprised white women. The Black Women's Health Study researchers, except for two black women, were also all white.

What happened to the doctoral student altered the course of the study. "We're thinking, Here's a middle-class, well-educated black woman having a preterm birth when no one else in our group had a preterm birth," says Dr. Julie Palmer, associate director of the Slone Epidemiology Center at Boston University and a principal investigator of the continuing study of 59,000 subjects. "That's when I became aware that the race difference in preterm birth has got to be something different, that it really cuts across class. People had already done some studies showing health effects of racism, so we wanted to ask about that as soon as possible."

In 1997, the study investigators added several yes-or-no questions about everyday race-related insults: I receive poorer service than others; people act as if I am not intelligent; people act as if I am dishonest; people act as if they are better than me; people act as if they are afraid of me. They also included a set of questions about more significant discrimination: I have been treated unfairly because of my race at my job, in housing or by the police. The findings showed higher levels of preterm birth among women who reported the greatest experiences of racism.

The bone-deep accumulation of traumatizing life experiences and persistent insults that the study pinpointed is not the sort of "lean in" stress relieved by meditation and "me time." When a person is faced with a threat, the brain responds to the stress by releasing a flood of hormones, which allow the body to adapt and respond to the challenge. When stress is sustained, long-term exposure to stress hormones can lead to wear and tear on the cardiovascular, metabolic and immune systems, making the body vulnerable to illness and even early death.

Though Arline Geronimus's early research had focused on birth outcomes mainly in disadvantaged teenagers and young women, she went on to apply her weathering theory across class lines. In 2006, she and her colleagues used government data, blood tests and questionnaires to measure the effects of stress associated with weathering on the systems of the body. Even when controlling for income and education, African-American women had the highest allostatic load scores — an algorithmic measurement of stress-associated body chemicals and their cumulative effect on the body's systems — higher than white women and black men. Writing in The American Journal of Public Health, Geronimus and her colleagues concluded that "persistent racial differences in health may be influenced by the stress of living in a race-conscious society. These effects may be felt particularly by black women because of [the] double jeopardy of gender and racial discrimination."

People of color, particularly black people, are treated differently the moment they enter the health care system. In 2002, the groundbreaking report "Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care," published by a division of the National Academy of Sciences, took an exhaustive plunge into 100 previous studies, careful to decouple class from race, by comparing subjects with similar income and insurance coverage. The researchers found that people of color

were less likely to be given appropriate medications for heart disease, or to undergo coronary bypass surgery, and received kidney dialysis and transplants less frequently than white people, which resulted in higher death rates. Black people were 3.6 times as likely as white people to have their legs and feet amputated as a result of diabetes, even when all other factors were equal. One study analyzed in the report found that cesarean sections were 40 percent more likely among black women compared with white women. "Some of us on the committee were surprised and shocked at the extent of the evidence," noted the chairman of the panel of physicians and scientists who compiled the research.

In 2016, a study by researchers at the University of Virginia examined why African-American patients receive inadequate treatment for pain not only compared with white patients but also relative to World Health Organization guidelines. The study found that white medical students and residents often believed incorrect and sometimes "fantastical" biological fallacies about racial differences in patients. For example, many thought, falsely, that blacks have less-sensitive nerve endings than whites, that black people's blood coagulates more quickly and that black skin is thicker than white. For these assumptions, researchers blamed not individual prejudice but deeply ingrained unconscious stereotypes about people of color, as well as physicians' difficulty in empathizing with patients whose experiences differ from their own. In specific research regarding childbirth, the Listening to Mothers Survey III found that one in five black and Hispanic women reported poor treatment from hospital staff because of race, ethnicity, cultural background or language, compared with 8 percent of white mothers.

Researchers have worked to connect the dots between racial bias and unequal treatment in the health care system and maternal and infant mortality. Carol Hogue, an epidemiologist and the Jules & Uldeen Terry Chair in Maternal and Child Health at the Rollins School of Public Health at Emory University and one of the original authors of the 1992 New England Journal of Medicine study on infant mortality that opened my own eyes, was a co-author of a 2009 epidemiological review of research about the association between racial disparities in preterm birth and interpersonal and institutional racism. Her study, published by the Johns Hopkins School of Public Health, contains an extraordinary list of 174 citations from previous work.

"You can't convince people of something like discrimination unless you really have evidence behind it," Hogue says. "You can't just say this — you have to prove it."

Lynn Freedman, director of the Averting Maternal Death and Disability Program at Columbia University's Mailman School of Public Health, decided to take the lessons she and her colleagues learned while studying disrespect and abuse in maternal care in Tanzania — where problems in pregnancy and childbirth lead to nearly 20 percent of all deaths in women ages 15 to 49 — and apply them to New York City and Atlanta. Though the study is still in its preliminary phase, early focus groups of some 50 women who recently delivered babies in Washington Heights and Inwood, as well as with doulas who work in both those areas and in central Brooklyn, revealed a range of grievances — from having to wait one to two months before an initial prenatal appointment to being ignored, scolded and demeaned, even feeling bullied or pushed into having C-sections. "Disrespect and abuse means more than just somebody wasn't nice to another individual person," Freedman says. "There is something structural and much deeper going on in the health system that then expresses itself in poor outcomes and sometimes deaths."

**Two days after** the birth of Landrum's baby, she had moved out of labor and delivery and into a hospital room, with the butterfly-decorated, crayon-drawn affirmations taped above her bed. She'd had a few hours of sleep and felt rested and cheerful in a peach-colored jumpsuit she brought from home, with baby Kingston, who had weighed in at a healthy 6 pounds 13 ounces, napping in a plastic crib next to her bed. But over the next hours, Landrum's mood worsened. When Giwa walked into her room after leaving for a few hours to change and nap, Landrum once again angrily recounted the mishap with the epidural and complained about the nurses and even the hospital food. Finally, Giwa put her hand on Landrum's arm and asked, "Simone, where are the boys?"

Landrum stopped, and her entire body sagged. She told Giwa that her sons were staying on the other side of town with her godmother, whom she called Nanny. But with children of her own, Nanny was unable to make the 40-minute drive to bring Landrum's sons to the hospital to see their mama and meet their brother. "After they lost their sister, it's really important that they see Kingston," Landrum said.

"I understand," Giwa said, stroking her shoulder. "You need the boys to see their brother, to know that he is alive, that this is all real." Landrum nodded. She made several phone calls from her hospital bed but could find no one to get the boys, so I left to drive across town and pick them up. It took Giwa's attentive eyes, and the months of building trust and a relationship with Landrum, to recognize a problem that couldn't be addressed medically but one that could have emotional and physical consequences.

The doula consumer market has been largely driven by and tailored for white women, but the kind of support Giwa was providing to Landrum was actually originated by black women, the granny midwives of the South. Inspired by that historic legacy and by increasingly visible reproductive-justice activism, dozens of doula groups like Birthmark in New Orleans have emerged or expanded in the past several years in Brooklyn, Los Angeles, Atlanta, Dallas, Memphis, Miami, Washington and many other cities, providing services to women of color, often free or on a sliding scale.

The By My Side Birth Support Program in New York City, administered by the city's Department of Health, offers free doula services during pregnancy, labor and delivery and postpartum for mothers in central and eastern Brooklyn's predominantly black and brown neighborhoods where maternal and infant mortality are highest. A team of 12 doulas has served more than 800 families since 2010, and an analysis of the program showed that from 2010 to 2015, mothers receiving doula support had half as many preterm births and low-birth-weight babies as other women in the same community.

Interventions that have worked to bring down maternal- and infant-mortality rates in other parts of the world have been brought back to the United States. Rachel Zaslow, a midwife and doula based in Charlottesville, Va., runs a program in northern Uganda, where a woman has a one-in-25 lifetime chance of dying in childbirth, through her nonprofit organization, Mother Health International. In Zaslow's program, community health workers — individuals selected by the community and given medical training — link local pregnant women to trained midwives and nurse-midwives. Since 2008, a mother has never died in Zaslow's

program, and the infant-mortality rate is 11 per 1,000, compared with 64 per 1,000 for the country at large.

Three years ago, when she became aware of high rates of infant and maternal mortality in pockets of Virginia, Zaslow decided to take her Ugandan model there: a collective of 45 black and Latina doulas in Charlottesville, called Sisters Keeper, that offers birthing services free to women of color. "The doula model is very similar to the community health worker model that's being used a lot, and successfully, throughout the global South," Zaslow says. "For me, when it comes to maternal health, the answer is almost always some form of community health worker." Since 2015, the Sisters Keeper doulas have attended about 300 births — with no maternal deaths and only one infant death among them.

"It is really hard for American health care professionals to get their heads around that when you have an organized community-based team that connects technical clinical issues with a deep, embedded set of relationships, you can make real breakthroughs," says Dr. Prabhjot Singh, the director of the Arnhold Institute for Global Health at the Icahn School of Medicine at Mount Sinai, who studies community health worker models and how they can be used in the United States. "In the U.S., doulas can't do it by themselves, but based on work that's taken place globally, they can help reduce infant and maternal deaths using what is essentially a very simple solution."

An hour and a half after Giwa noticed that Landrum needed to have her sons with her, Caden and Dillon burst through the door of the hospital room. Holding Kingston in her lap, Landrum lit up at the sight of the boys. Caden, who is 4, ran to his new brother, gleefully grabbing at the infant. "Calm down," Landrum said, smiling and patting the side of the bed. "Put out your arms, strong, like this," she told him, arranging his small arms with her free hand. Gently, she lay Kingston in his brother's outstretched arms. "It's my baby," he said excitedly, leaning down to kiss the infant all over his cheeks and forehead. "I luh you, brother."

Dillon, 7, was more cautious. He stood near the door, watchful. "Don't you want to meet your brother, Dillon?" Landrum asked. He inched closer, looking at the floor. "Come on, boy, don't be shy. This is Kingston." He sat on the other side of his

mother, and she took the baby from Caden and placed him in Dillon's arms. He looked down at the newborn, nervous and still hesitant. "It's a real baby," he said, looking up at his mother and finally smiling. "Mommy, you did it."

"At that moment, I felt complete," Landrum said later, tearing up, "seeing them all together."

On a cool, sunny afternoon in March, Landrum led me into her living room, which now held a used couch — a gift from a congregant of her church, where she is an active member. A white plastic Christmas tree strewn with multicolored Mardi Gras beads, left up after the holidays, added a festive touch. Landrum handed me Kingston, now 3 months old, dressed in a clean onesie with a little blue giraffe on the front. Plump and rosy, with cheeks chunky from breast milk and meaty, dimpled thighs, he smiled when I sang him a snippet of a Stevie Wonder song.

Landrum had lost the baby weight and looked strong and healthy in an oversize T-shirt and leggings, wearing her hair in pink braids that hung down her back. There was a lightness to her that wasn't apparent during her pregnancy. One word tumbling over the next, she told me that the new baby had motivated her to put her life in order. She had been doing hair and makeup for church members and friends out of her house to earn money to buy a car. She had applied to Delgado Community College to study to be an ultrasound technician. "I love babies," she said. "When I look at ultrasound pictures, I imagine I see the babies smiling at me."

Latona Giwa had continued to care for Landrum for two months after Kingston's birth. The C.D.C. measures American maternal mortality not just by deaths that occur in pregnancy or childbirth, or in the immediate days afterward, but rather all deaths during pregnancy and the year after the end of pregnancy — suggesting the need for continued care and monitoring, especially for women who are most at risk of complications.

It was Giwa who drove Landrum and the baby home from the hospital, moving her own 2-year-old daughter's car seat from the back of her Honda and replacing it with a backward-facing infant seat, when Landrum had no other ride. It was Giwa who ushered the new mother into her home and then surprised her by taking a bag of groceries and a tray of homemade lasagna, still warm, from the back of the car.

And it was Giwa who asked her, six weeks after childbirth, if she had talked to her doctor about getting a contraceptive implant to avoid pregnancy. When Landrum told her that her doctor had never called her about a checkup, Giwa was livid. "Highrisk patients with complicated maternal histories often have an appointment two weeks after they've been discharged," she said later, after insisting that Landrum call to make an appointment. "Her life is hectic; she's at home with three children. Luckily she's fine, but at minimum someone should've called to check on her."

For Giwa's work with Landrum, from October to February, she earned just \$600. Like the other Birthmark doulas, Giwa can't make ends meet just doing doula work; she is employed as a lactation consultant for new mothers both privately and at a "latch clinic" in a New Orleans office of the federal Women, Infants and Children Food and Nutrition Service that supports low-income pregnant and postpartum women.

"We need to recognize that there is actual medical benefit to having doula support — and make the argument that insurance should pay for it," says Williams, the Bay Area OB-GYN. "It is a job. People do have to be paid for that work." Insurance would mean some standardization; Williams notes that many programs securing public funding or grants to provide doula support to lower-income women can't match the kind of money that private doulas can command. These programs often have "all black women who are doulas," she says. "Yes, it's fantastic that these women are training to be doulas and supporting other black women — but they're not making as much as these other doulas." If, she asks, "doula support is important and can have this beneficial outcome for women, especially black women, how can we actually move forward to make that more accessible to everybody?"

In her home on that March afternoon, Landrum put Kingston into a baby carrier. He fell asleep as we walked five blocks to meet Dillon and Caden, who were due home from school at two different bus stops. The boys jumped off their buses, dressed in identical red polo shirts, their hair freshly cut, each dragging a large backpack, and ran to their mother. Dillon could hardly wait to pull out his report card and show his mother his grades; he had received four out of six "exceptional" marks. "He's smart," Landrum said, and he gave her a huge, gaptoothed smile.

Then he raced ahead, his backpack lurching as he leapt over bumps in the sidewalk full of pent-up little-boy energy; Caden was right behind him, doing his best to keep up with his brother's longer strides. "Hey, y'all, you be careful!" Landrum called, keeping her eyes trained on them. "You hear me?!"

Kingston stirred when he heard his mother's voice. He lifted his head briefly and looked into Landrum's face. Their eyes met, his still slightly crossed with new-baby nearsightedness. Landrum paused long enough to stroke his head and kiss his damp cheek. The baby sighed. Then he burrowed his head back into the warmth and safety of his mother's chest.

Linda Villarosa directs the journalism program at the City College of New York, in Harlem, and is a contributing writer for the magazine. She last wrote a feature about the H.I.V. epidemic among American black gay and bisexual men.

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