In August of 1953, in rural Hale County, Alabama, two immigrants from Jamaica were expecting their second child, a baby girl. But when the big day came, the local hospital was not an option. The couple’s choices were: drive more than 100 miles away to the nearest integrated hospital in Birmingham or deliver in the next town over, in the office of a rare general practitioner who was known to open his door to Black patients.

They chose the latter, and that was how Jeannette South-Paul (MD ’79) came to be. Her mother gave birth on an exam table, then rested for a couple of hours on the doctor’s waiting-room couch until she felt better. And then they went home.

The family eventually moved to downtown Philadelphia, where her parents ran a rescue mission for 34 years. South-Paul, her parents and her five brothers and sisters lived above the mission. She grew up helping out, serving meals. On Saturday mornings in high school she ran the thrift shop, selling clothing for 50 cents a piece.
Modern medicine’s promise is bountiful health. Why have Black Americans been left behind?
This is where her desire to pursue medicine began: surrounded by the everyday differences in how people are treated, and the toll those differences take “on emotional, spiritual and physical health,” she says.

Today, South-Paul is a U.S. Army colonel and recently retired Andrew W. Mathieson Professor and chair of family medicine at the University of Pittsburgh—though she certainly doesn’t act retired. She’s often Zooming for four hours a day with Veterans Affairs and other committees. The recipient of the American Medical Association’s Pride in the Profession Award, the Joy McCann Foundation prize for mentorship and Pitt Med’s own Black Bag Award (which honors a faculty member each year for work with underrepresented minority students), South-Paul has dedicated her career to equity in community health in her many roles: researcher, medical educator, physician, mentor—and potluck host for up-and-coming women in medicine.

South-Paul cowrote the grant that established the UPMC Matilda H. Theiss Health Center, UPMC’s first federally qualified health center; it was funded for 17 years. The center is located in Pittsburgh’s Hill District—the same neighborhood she called home as a med student. In the ’70s, landlords in Pitt’s backyard, Oakland, would not rent to her.

On a recent Zoom-filled summer afternoon, from her new home office in Maryland, South-Paul explains it was no surprise that COVID-19 has not turned out to be the “great equalizer” that politicians, celebrities and the media predicted in the early days of the pandemic. The novel coronavirus is much more lethal to Black and Brown people across the United States, and unsurprisingly so—“not because they are genetically less valuable or weaker,” she says. No. Nor is this some mystery we need samples and scans to uncover.

The death toll, rather, is the sum total of the realities of American life that stare us all in the face every day.

Consider public health experts’ best advice: Stay home and flatten the curve. Service-sector and other jobs that cannot be carried home in a laptop case (and that usually don’t come with health insurance) are overrepresented among Black and Latinx populations. So are reliance on public transportation to get to those jobs and more densely populated housing and multigenerational residences to come home to.

Consider the lungs, where we first learned this pathogen sows devastation: Black Americans are up to three times more likely to land in the hospital with an asthma attack. “We know that asthma rates in children are especially high in Allegheny County and specifically high around some of these manufacturing plants,” South-Paul notes. Throughout the country, Black Americans are 75% more likely to live near industrial facilities—and the environmental toxins that come with them, according to a recent report cosponsored by the NAACP.

The cardiovascular system and kidneys, which are also embattled by COVID-19, deteriorate absent a diet of nutritious, whole foods. But such a diet is a luxury. Half of all low-income neighborhoods in the United States are food deserts. Black Americans, the most segregated of ethnicities, have the highest poverty rates in the country. Black Americans are twice as likely as white Americans to have diabetes and 40% more likely to have high blood pressure.

Remember Hurricane Katrina, South-Paul asks? In that crisis, the public safety dictate was: Get out of town. But that was a plan hatched by those with cars and credit cards and privilege. Meanwhile, residents of the Lower 9th Ward faced the storm unaided, while dozens of city buses—the obvious tools of a lifesaving mass evacuation that could’ve been—sat idle in a parking lot.

“I can give example after example through my career. Every time there is a crisis, that crisis is superimposed on longstanding structural inequities,” South-Paul says, citing HIV and the H1N1 virus, as well. Not an equalizer, great or otherwise, among them.

In recent years, medical education at Pitt and elsewhere has increasingly focused on social determinants of health (factors like socioeconomic status, education and health care access), which we’ve covered in this magazine. We’ve touched on bias. We’ve touched on race, our language at times falling short; we’ve called race a “risk factor” and failed to fully explain that it’s inequities and discrimination—not Blackness—that cause disease. We missed the story.

A groundswell of data gives chilling credence to the fact that there’s more to health inequities than just income or education. Further, the way that many of us talk and write and teach about race all too often is: Wrong.

The point we’ve been missing—the one that should not have been such a shock to anyone—was that it wasn’t race, but racism and its legacy, that sickens, maims and kills.

To be clear: From a scientific perspective, the word “race” should have quotes around it. We’ve known since the 1990s that human beings are 99.9% genetically identical. For all of Western medicine’s attempts to force taxon-
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omy on humanity, race is, in reality, nothing more than a social construct. An aspect of identity. An idea.

But it’s a powerful idea at that, and its impact on health cannot be ignored. Through discrimination and bias—conscious or not—race shapes every facet of American life.

As Harvard University’s David Williams, who has studied health disparities for decades, explains in his 2017 TED Talk (which has been viewed 1.2 million times): In one study, Black teens who reported higher levels of discrimination had higher blood pressure, stress-hormone levels and weight by age 20. And through time, these stressors went hand in hand with obesity, cancer, heart disease and, sadly, premature mortality.

“Most surprising of all,” Williams says in his presentation, “whites who have graduated from high school live longer than Blacks with a college degree or more education.”

One of the most shocking examples of health care inequities is at the bedsides of new mothers.
Nationwide, African American women are four times more likely to die or nearly die as a result of pregnancy than white women.

These data support a hypothesis known as weathering, which has been gaining momentum in scientific circles for decades. It goes something like this:

Compare two people over time. One lives in an optimal environment, with access to necessary resources and relatively few stressors. The other person has the opposite experience, and as the years pass, their body is worse for the wear. This, the thinking goes, is why diseases present at much earlier ages in Black Americans than in white Americans.

South-Paul, who has served on several task forces through the years for the National Academy of Medicine, says the data are clear: The amount of stress a person is under influences their susceptibility to chronic conditions.

“Is this not a mystery? This is not new.”

WHY THE DISTRUST?

Picture a medical team on rounds. A patient, propped up in bed, follows the group’s discussion of her illness and treatment response, and how best to move forward toward recovery. A plan emerges. The attending physician tells the patient what, in his informed medical opinion, should happen next.

OK? he says, looking at the patient, ready to move on to the next bed.

But her gaze is elsewhere, fixed on the medical student in the room.

Is that right? the patient asks the young third-year in a short white coat. Do you agree?

And the reason for this hesitation, this need for approval from the greenest member of the medical team, is because the patient is African American, and the medical student—the only other Black face in her sights—is the only person in the room whom she trusts.

This is a scene many of our institution’s Black students and trainees would find familiar, says Pitt’s Esa Davis, an MD/MPH. Davis is associate professor of medicine and of clinical and translational science and director of the UPMC Tobacco Treatment Service, as well as of the Career Education and Enhancement for Health Care Research Diversity (CEED) Program. She’s also associate director of the Clinical and Translational Science Institute KL2 Scholars program.

When I first brought up the subject of patient trust, I was expecting to hear about history: The Tuskegee syphilis study. The Cincinnati radiation experiments. Sterilization at the hands of eugenicists. Surgical experiments in the era of American chattel slavery. Separate but unequal Jim Crow hospitals. Henrietta Lacks’ stolen cells.

Instead, I heard tales of health care providers—today, not decades ago—who do not listen. Who do not make eye contact. Who do not believe patients.

Davis, who helms two training programs for junior faculty members, has been a mentor, sounding board and coach for dozens of emerging Pitt-minted physicians and physician-scientists of color for nearly a decade.

And to many of her patients, she is a singular source of comfort in navigating a fraught health care system.

“Honestly [trust] is probably the reason why a majority of the patients who come and see me, come and see me,” says Davis, who is an African American. “Because we start on equal footing.”

Bias is mistrust’s flipside and reason for being. And unfortunately, it has been well documented in medical literature, from 20 years ago to the present day, explains assistant professor of medicine Utibe Essien, a millennial in a bow tie. (Well, usually, anyway—in the summer heat, he wears a Harvard T-shirt for our video chat.)

Essien, a core investigator with the Center for Health Equity Research and Promotion in the VA Pittsburgh Healthcare System, studies clinical bias; his expertise has thrust him into the national spotlight in recent months, with interviews with The Washington Post, STAT News, Vox, CNBC and The New York Times.

Recently, on NPR’s On Point, Essien said that, along with poverty, trust is a critical issue around health equity in the pandemic: “We have a long, long, long history of distrust in the health care system in African American communities. Rightfully so. And individuals in those communities just thinking, Oh, I’m probably not going to be tested. The doctor might not believe me. That certainly is compounding the issue.”

Essien cites a 1999 New England Journal of Medicine (NEJM) paper, wherein researchers polled cardiologists on how they would treat hypothetical patients. The researchers sent videos of actors, who represented a variety of ethnicities and genders, describing chest pain. And despite the actors’ identical scripts, the physicians were more likely to order the appropriate workup for a suspected heart attack for white patients, especially white men. Black women were the least likely to receive the standard of care.

In recent years, the medical community has finally begun to take seriously a startling race-based assumption that’s baked right into everyday clinical practice and instruction (after the University of California, San Francisco’s Vanessa Grubbs and others had been sounding the alarm for more than a decade).

It has to do with the GFR (for glomerular filtration rate), an algorithm that’s been the go-to measure for kidney function and health for decades.

As it turns out, when doctors dutifully check the box for “African American,” the system automatically assumes the patient has more muscle mass, explains Essien (who is Black), “whether it’s someone like me, who has not been to a gym in the last three months because of COVID, versus a white bodybuilder.”

As a patient’s kidney health deteriorates, their GFR score declines. The lower the score, the closer that patient moves toward a spot on the kidney transplant wait list. The system’s race-based assumption means Black patients automatically score higher—and thus, must wait longer, and grow sicker—than white patients do to even get in line for this lifesaving intervention.

Another algorithm known as the PFT (for pulmonary function test) presumes that Black people have lower lung volumes than white people, a falsehood that was popularized by the infamous pre-Civil War physician Samuel Cartwright.

Today, the legacy of that lie persists in inconsistent assessments of lung function, which likely contribute to disparities in pulmonary care.

In Cartwright’s day, that same lie was used to justify slavery. Hard, forced labor, he wrote, moves blood to the brain, “and it is the want of sufficiency of red vital blood
that chains [enslaved people’s] minds to ignorance and barbarism when in freedom.”

To date, with the publication of an NEJM paper out of Harvard this June, there are 13 known algorithms with race-based assumptions, spanning a range of medical questions related to breast cancer risk, heart surgery complication risk, vaginal versus cesarean mode of delivery and more.

In a 2016 study, University of Virginia researchers interviewed white med students and residents about perceptions of ethnicity and physiology. The racist notions that about half of these respondents went along with boggle the brain: Black patients have thicker skin, they said. Black patients’ blood is thicker and more likely to pool and clot, they said. Black patients have fewer sensory nerve endings and feel less pain, they said.

If these were the preconceived notions of actual medical doctors and doctors-in-training, says Essien, “that makes you wonder what other people are thinking.”

That same study found that the residents who responded in this way were more likely to undertreat pain in Black patients—a disparity that is well documented in the literature.

In 2018, Essien published in JAMA Cardiology a study showing that Black patients were about 30% less likely to receive the latest, greatest medications for atrial fibrillation, a chronic heart disease that causes strokes. And when his team controlled for other factors like age, whether or not the person has insurance or whether or not they are hypertensive, there was still a difference of 20%.

“There must be something else living in that 20%,” he says, “and that’s where I’m really hoping to dive in with my research now—talking to patients and providers about what could be driving that difference. If it’s not clinician bias, then is it patient trust? Is it just patients’ broader social factors?”

Factors like, for example, the cost of medication. Davis recalls a scene from her own rotations in med school in New Jersey. A patient, an African American man, had just had a stroke. And the resident on the team presented the case as: This patient was noncompliant and did not take his medication.

Davis spoke up and told him, No, that wasn’t what had happened.

In reality, the cost of his prescription rivaled his rent. So he paid his rent first, with the intention of filling his script later, when he could get the money together—“what any reasonable person would do in that situation.” This patient needed to be connected to a social worker, she said.

It’s moments like this, says Davis. There’s a judgment, a key omission, a miscommunication, a flat-out falsehood. “This is how trust gets eroded.” When the physician isn’t listening—really listening—the patient knows it, and that can influence expectations of the care they’ll receive the next time they encounter a white coat.

Davis is acutely aware of all of this in every clinical interaction. “I listen to my patients,” she says.

And when she has to refer to a specialist, she first sits down with the patient for a chat: These are the questions you need to ask. These are the answers you need to make sure they give you.

And before her patient heads out, Davis contacts the doc personally: I’m selecting you for a reason—because I know that you will sit and talk and provide all their options. She follows up after the fact, too, to see how it went. And if that specialist falls short? No more referrals.

But for some patients, despite all these safeguards, trust is so shattered that even when all goes well, they still will not follow through with the specialist’s advice until they have taken yet another step: They come right back to Davis.

Dr. So-and-So said this and this. I told him I needed to talk to you first.

“When doctors dutifully check the box for “African American,” the system automatically assumes the patient has more muscle mass.”

“it happens all the time,” Davis says. Without trust, cumulative effects on health snowball. Age-related screenings and other preventive care are a much tougher sell—let alone setting foot in the clinic for an annual exam in the first place.

A wealth of data show that when doctors and patients identify with the same race or ethnicity, physician judgment calls land more often in the patient’s favor, whether it’s ordering flu shots or an interventional heart procedure or a script for pain meds. But today, only 5% of doctors are Black and 5.8% are Latinx, and in competitive specialties like orthopaedics, plastic surgery and dermatology, the numbers trickle down even further.

In June, Essien coauthored a perspective paper in NEJM examining the impacts of changing the U.S. Medical Licensing Exams—which, as of 2021, will be scored on a pass/fail basis. This will be a change for the better in terms of medicine’s pipeline problem, he says. Because throughout the last 20 years, the exam has become a means of exclusion and “weeding people out,” he says.

Underrepresented minority students tend to score lower on these exams, and this is due to a number of reasons that largely point to historical inequities in communities of color, the authors note. A low test score can be a crushing blow to a med student’s confidence at a pivotal moment, the start of the third year. And all of this for a test that has not been proven to correlate with future clinical competence.

“Standardized exams can be the great equalizers they are purported to be,” write Essien and his colleagues, “only if everyone has access to the resources required to excel on them,” namely: high-quality early education, test preparation and science programs, and a community of professionals to mentor and guide a young MD in the making.

Essien and his coauthors, Quentin Youmans of Northwestern University and Quinn Capers IV of Ohio State University,
call for a more holistic review of applicants—and critically, providing busy doctors and program directors support they need to make that kind of review possible. (Capers, by the way, spoke on these topics at Pitt in 2017—you can see his slides at pi.tt/capers17.)

This would be a more subjective process, yes.

“Nevertheless, we believe that holistic review will be a tide that raises all ships equitably,” the authors write. The diverse workforce it makes possible can be a powerful protectant against the twin dilemmas of clinical care: clinician bias and patient mistrust. In these, subjectivity is alive and well.

The time to diversify the workforce is yesterday, says Davis. While this is true across the health sciences, the shortage of physicians of color, in particular, is urgent. “We really do have to start today to change what it's going to look like in 10 years, when all these people get through and get finished and board certified and through residency and fellowship.”

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IN A PANDEMIC

When COVID-19 hit Boston, about 40% of the patients admitted to Massachusetts General, where Essien trained, were Latinx. About 80% of those patients were Spanish speaking. That underlined a whole new set of urgencies.

“How challenging is it to be able to have these really critical, heartfelt, end-of-life conversations with a patient whose language you don’t speak?” he asks. Bringing in an interpreter means another person in the room—and interpreters are not always available.

RISING

In response to concerns raised by underrepresented minority students in letters and town hall meetings, Anantha Shekhar—the new John and Gertrude Petersen Dean of the School of Medicine and senior vice chancellor for the health sciences—made addressing discrimination and xenophobia a top priority from the very first month of his Pitt tenure this summer. After a series of frank discussions with Black, Asian and Pacific Islander students, in July, he announced his first concrete steps toward change: forming a rapid response team to review objectives identified by Black medical students; establishing a dean’s scholarship to be awarded to up to three underrepresented minority students annually; and creating an Office of the Ombudsperson, which will offer confidential and anonymous support to students within all six of Pitt’s health science schools.

Around this time, I began a listening tour of some two dozen School of Medicine faculty, most of whom are people of color, to discuss the effects of discrimination and inequity on health. (It quickly became obvious that these conversations were not all for this single story, but the first of many in forthcoming issues of Pitt Med.)

At the time of these interviews, the school’s task force was just days or weeks