Graduate Medical Education and Social Determinants of Health Partnership in Health Equity

William McDade, MD, PhD
Chief Diversity, Equity and Inclusion Officer
Accreditation Council for Graduate Medical Education

ACGME's role

Eliminating health care disparities is consistent with the mission of the ACGME to improve health care and population health by assessing and enhancing the quality of resident physicians' education through advancements in accreditation and education

Provide an assurance function to the public through accreditation

Provide outreach and education to support the formative elements of change in the GME environment that leads to better health for the patients today and in the future

ACGME foundational principles in DEI

- Society must view health care disparities as a deficiency in healthcare quality
- Health equity is a means to achieve elimination of health care disparities
- Increasing workforce diversity is a means to achieve health equity
- Inclusion is a tool to ensure that diversity is successful

Action Steps

- ACGME formed an Office for Diversity Equity and Inclusion (DEI)
- Modified common program requirements to address DEI
- Changed its mission to address the formative piece that programs typically lack experience and expertise in DEI
- Changed its vision to explicitly add diversity and inclusion as a key element
- Developed new tools to assess programs and institutions for compliance
- Developing learning communities to continuously improve DEI practices

ACGME pledges to demand justice

It is our collective duty to advocate for all our patients, and to care equally and equitably *for* all our patients, even as we care *about* our patients. We must use the support and appreciation the public has provided us due to the heroic altruistic work we have seen in health care across our nation in response to the COVID-19 pandemic. We must leverage that heightened social standing to speak out on behalf of everyone, promote equity and fairness, and demand justice in all its forms, especially in the provision of health care to all who require it.

Accreditation Council for Graduate Medical Education

What We Do | Designated Institutional Officials | Program Directors and Coordinators | Residents and Fellows | Meetings and Educational Activities

Home > Newsroom > A Message from Dr. Thomas J. Nasca

June 5, 2020

A Message from Dr. Thomas J. Nasca

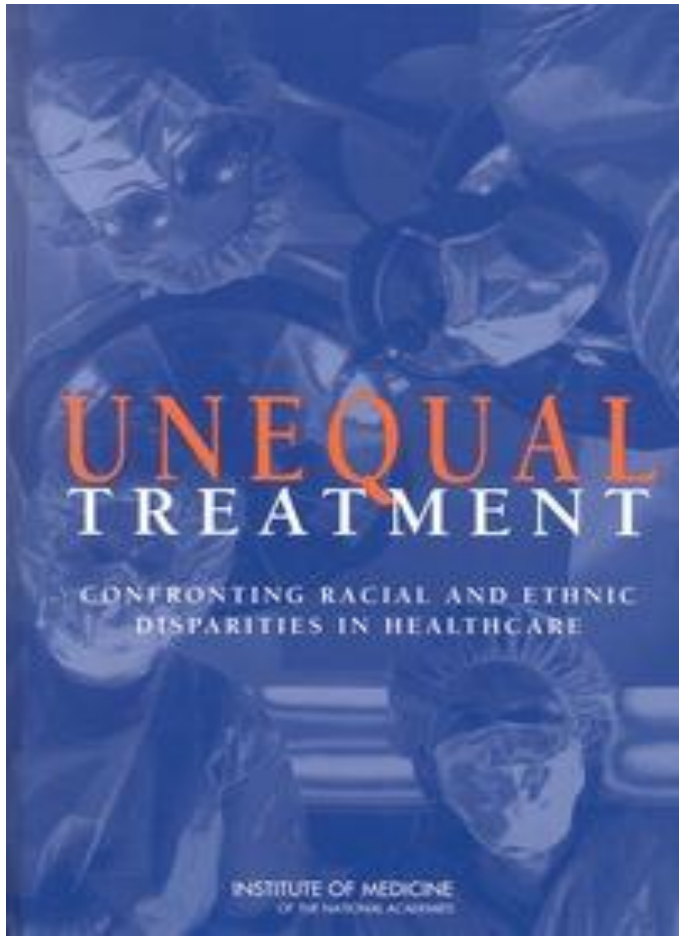
Letters to the Community

Dear Members of the Graduate Medical Education Community,

I am compelled as a citizen to speak with you about the pain that we are experiencing. I acknowledge that I am not an African American man and cannot speak on their behalf. But I am a human being and a physician who must respond. The nation, the city of Chicago, our local communities, and our families have been shaken by the events of the past week. We collectively grieve over the senseless murder of George Floyd at the hand of four policemen, and rage against its roots in racism and the devaluation of human life. This malicious act has ignited reaction to this most deep-rooted injustice across our nation and comes in a time where we recognize inequity in health and survival from the pandemic upon us. We join arm-in-arm with the peaceful protestors to demand changes in our society and our systems in order to root out racism and injustice, and foster equity, mutual understanding, kindness, and justice. We understand the anger, pain, and frustration being demonstrated in the streets across our country, and we also recognize the fear and insecurity being felt by so many, including our colleagues, in the aftermath of the rioting of the past few days.

The work of the ACGME has always been to bring people together to build better systems of education and training for the improvement of the health and well-being of the public. This includes a special responsibility to take-on the

Evidence of Racial and Ethnic Disparities in Healthcare



584 pages detailing the extent of racial and ethnic differences in healthcare that are not otherwise attributable to known factors such as access to care

Disparities consistently found across a wide range of disease areas and clinical services

Disparities are found even when clinical factors, such as stage of disease presentation, co-morbidities, age, and severity of disease are taken into account

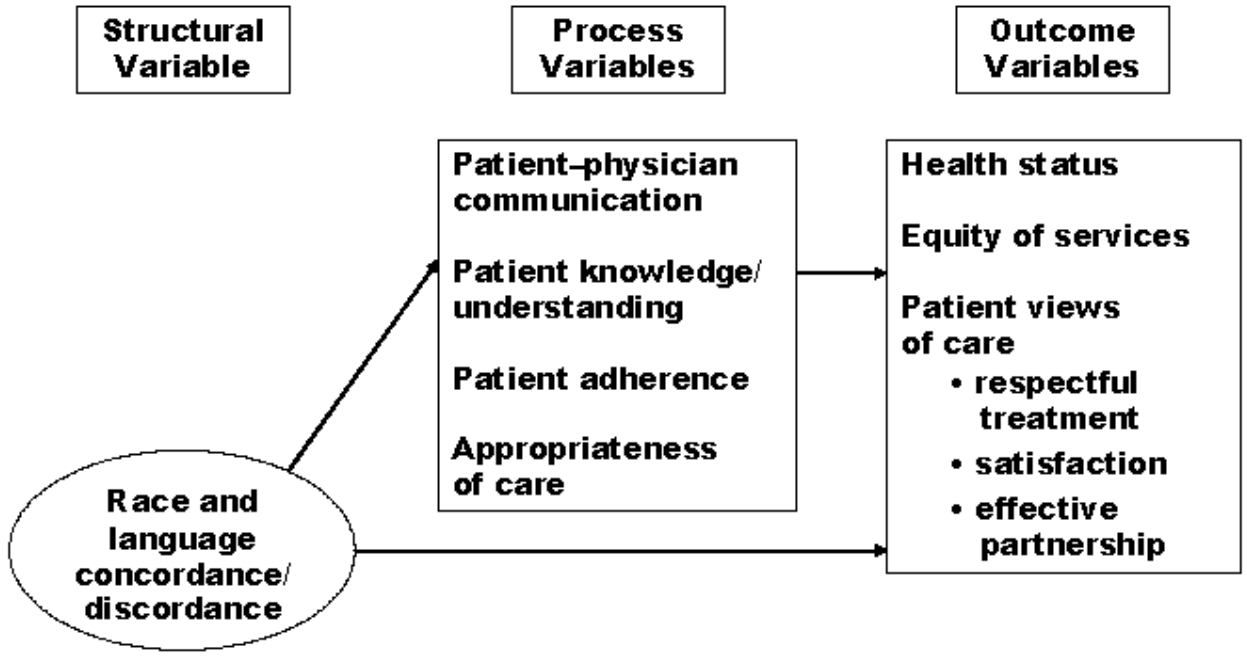
Disparities are found across a range of clinical settings, including public and private hospitals, teaching and non-teaching hospitals, etc.

Disparities in care are associated with higher mortality among minorities (e.g., Bach et al., 1999; Peterson et al., 1997; Bennett et al., 1995)

Nat Acad Press 2002

IOM study recommendations highlight workforce diversity as a means to eliminate health disparities

Figure 1. Does race and/or language concordance between physicians and patients improve processes and outcomes of health care?



Patient education programs should be implemented to increase patients' knowledge of how to best access care and participate in treatment decisions

Integrate cross-cultural education into the training of all current and future health professionals

Increase in the proportion of underrepresented U.S. racial and ethnic minorities among health professionals

Cooper and Powe Commonwealth Fund Report: Disparities In Patient Experiences, Health Care Processes, and Outcomes: The Role of Patient-Provider Racial, Ethnic, and Language Concordance 2004

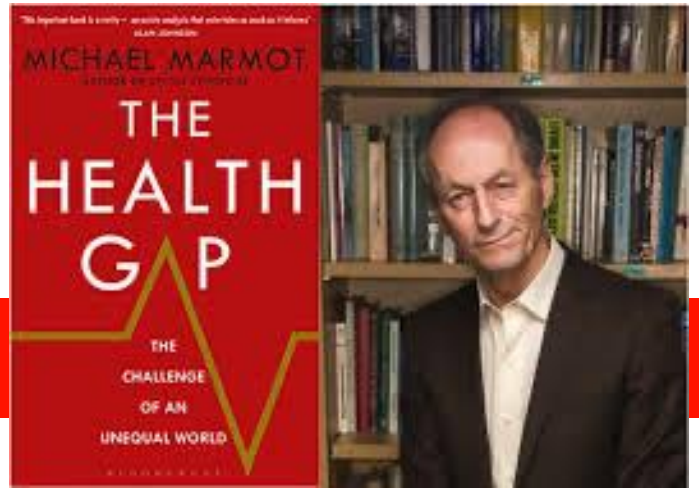
Social determinants of health

- Early childhood experiences
  - Toxic stress response - latency
  - Adverse childhood experiences
  - Childhood depravation and poverty
- Education and empowerment
- Work and the workplace
  - Power, money, resources

ACEs Dramatically Increase Risk for 9 out of 10 Leading Causes of Death in US

	Leading Causes of Death in US, 2017	Odds Ratio Associated with ≥ 4 ACEs
1	**Heart Disease**	**2.1**
2	**Cancer**	**2.3**
3	**Accidents**	**2.6**
4	**Chronic Lower Respiratory Disease**	**3.1**
5	**Stroke**	**2.0**
6	**Alzheimer's**	**11.2**
7	**Diabetes**	**1.4**
8	Influenza and Pneumonia	Unknown
9	**Kidney Disease**	**1.7**
10	**Suicide (Attempts)**	**37.5**

Source of **causes of death**: CDC, 2017[16]; Sources of **odds ratios**: Hughes *et al.*, 2017[12] for 1, 2, 4, 7, 10; Petrucelli *et al.*, 2019[9] for 3 (injuries with fracture), 5; Center for Youth Wellness, 2014[17] for 6 (Alzheimer's disease or dementia); Center for Youth Wellness, 2014[17] and Merrick *et al.*, 2019[26] for 9



Social determinants of health

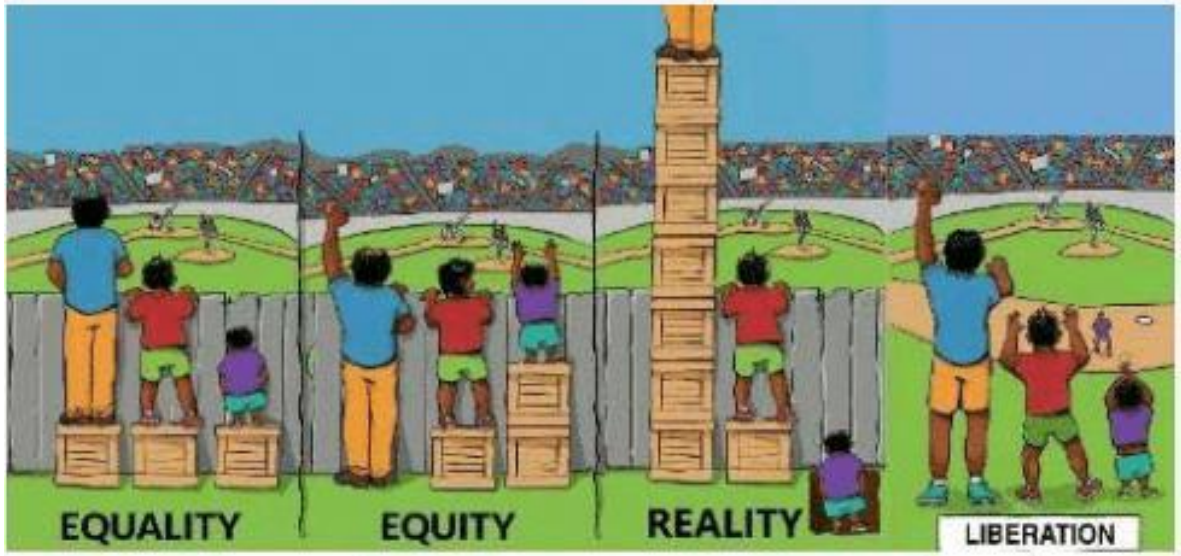
Treatment of the elderly

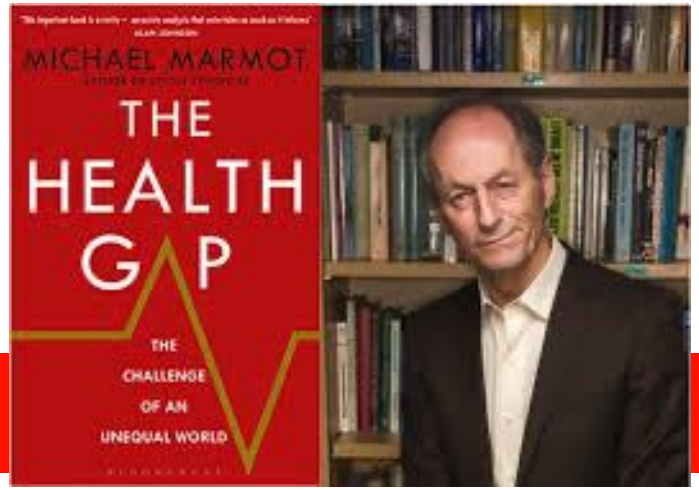
Isolation, minimum income for healthy living, empowerment, dignity

Community Resilience

Food, housing, transportation and recreational security; violence prevention; criminal justice; environmental justice; and self-efficacy

Fairness and equity





Empathy gap

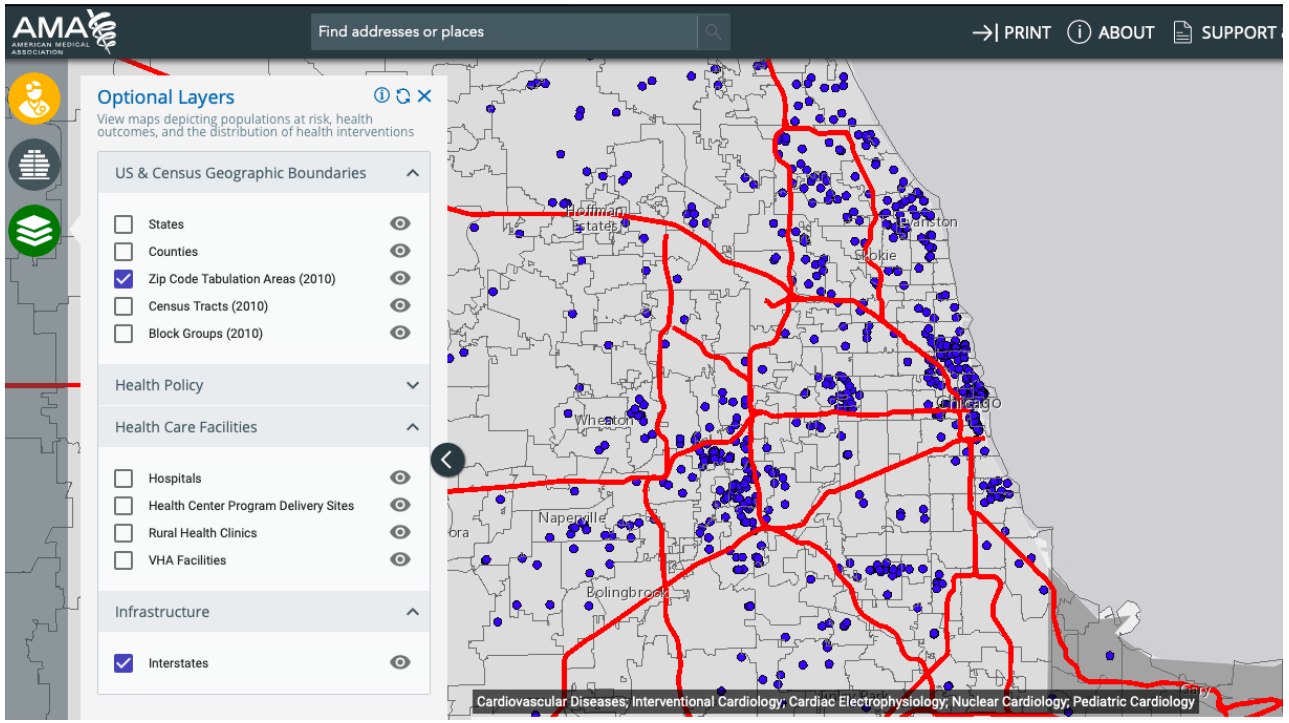
We have become comfortable with disparities because they are not our problem

We have become disconnected because we are not proximate to those who are suffering

Vaclav Havel, Czech leader spoke of a willingness of the spirit to sometimes be in hopeless places and be a witness

Bryan Stevenson, founder/executive director of the Equal Justice Initiative at AAMC Learn Serve Lead 2019

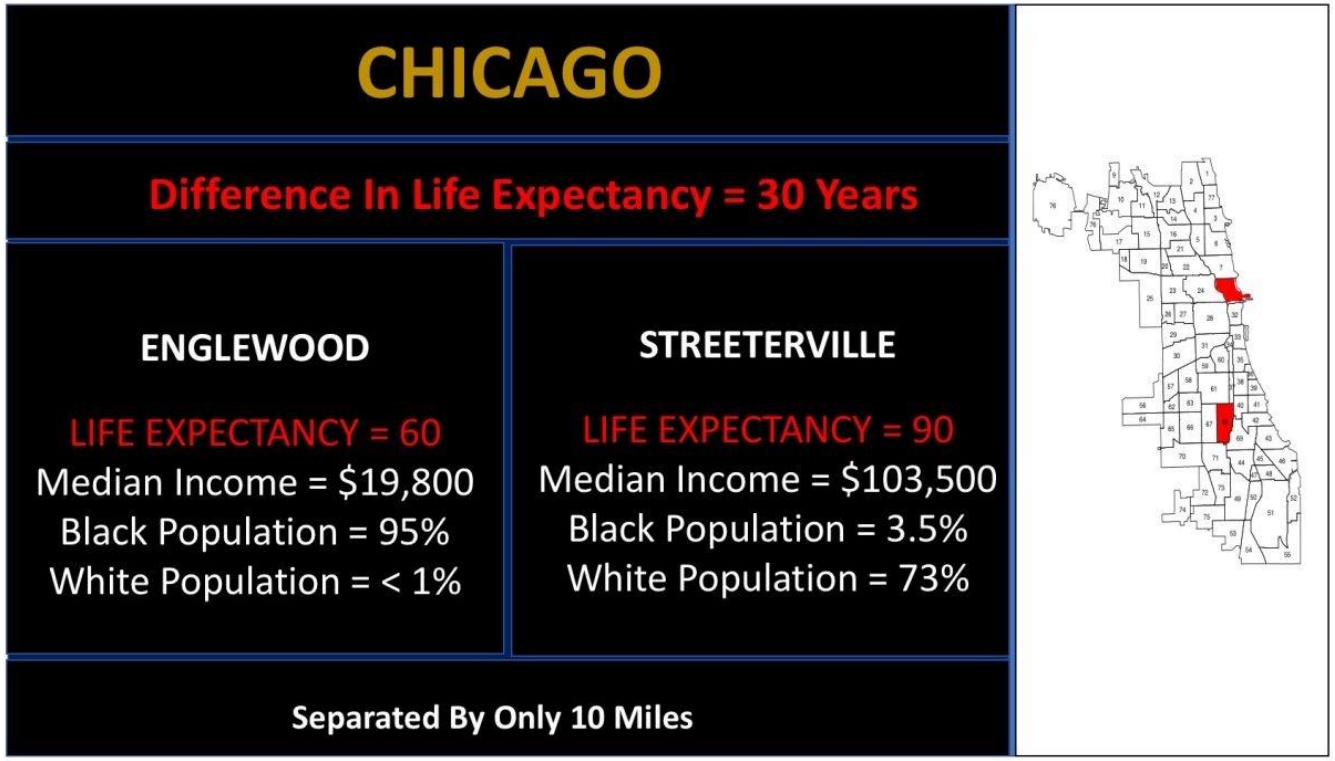
Inverse association between where physicians practice and where disease burden is greatest



AMA Health Workforce Mapper

- Life expectancy differs greatly based on zip code
- Geographic co-location of physicians and disease may positively affect health outcomes
- Physician distribution is not homogeneous nor related to disease burden

Inverse association between where physicians practice and where disease burden is greatest



NYT 5 Sept 2020
https://www.nytimes.com/interactive/2020/09/05/opinion/inequality-life-expectancy.html

- Life expectancy differs greatly based on zip code
- Geographic co-location of physicians and disease may positively affect health outcomes
- Physician distribution is not homogeneous nor related to disease burden

Racial disparities in orthopedic care

Racial disparities in access to care exist in Medicare inpatients several cardiovascular, cancer and orthopedic procedures.

From 2012-2018, Black patients received 67,000 fewer orthopedic procedures than if the care had been equitably distributed.

In this same period, high-quality facilities performed 38,000 fewer orthopedic procedures for Black patients

For the nearly 2 million Medicare patients who received knee replacements, all non-white groups were less likely to be treated at a High Performing hospital than white patients when compared to the overall breakdown of who is getting these surgeries at all

U.S.News HEALTH » Hospitals Hospital Heroes Doctors Senior Care Wellness Diets Conditio

Health / Best Hospitals

Who Gets High Quality Hospital Care?

A look at racial disparities in access to surgical care.

By **Anwesha Majumder** and **Ronan Corgel** July 28, 2020, at 12:00 a.m.

A U.S. NEWS ANALYSIS OF seven years of Medicare records reveals broad and enduring racial disparities in who receives surgical care and in the quality of the hospitals where people of different races tend to get treated. These new findings build on many years of scientific research that has exposed racial disparities in access to health care. Among U.S. News' key findings:

- Racial disparities in access to care exist in Medicare inpatients age 65 and older across several cardiovascular, cancer and orthopedic procedures.
- These differences are particularly striking in cardiovascular and orthopedic care, where Black patients represented fewer than 5% of Medicare beneficiaries who received the examined treatments, approximately a third less often than would be expected given that Black patients represented 7.3% of all Medicare hospitalizations. This translated to Black patients receiving 20,400 fewer cardiovascular procedures and 67,000 fewer orthopedic procedures

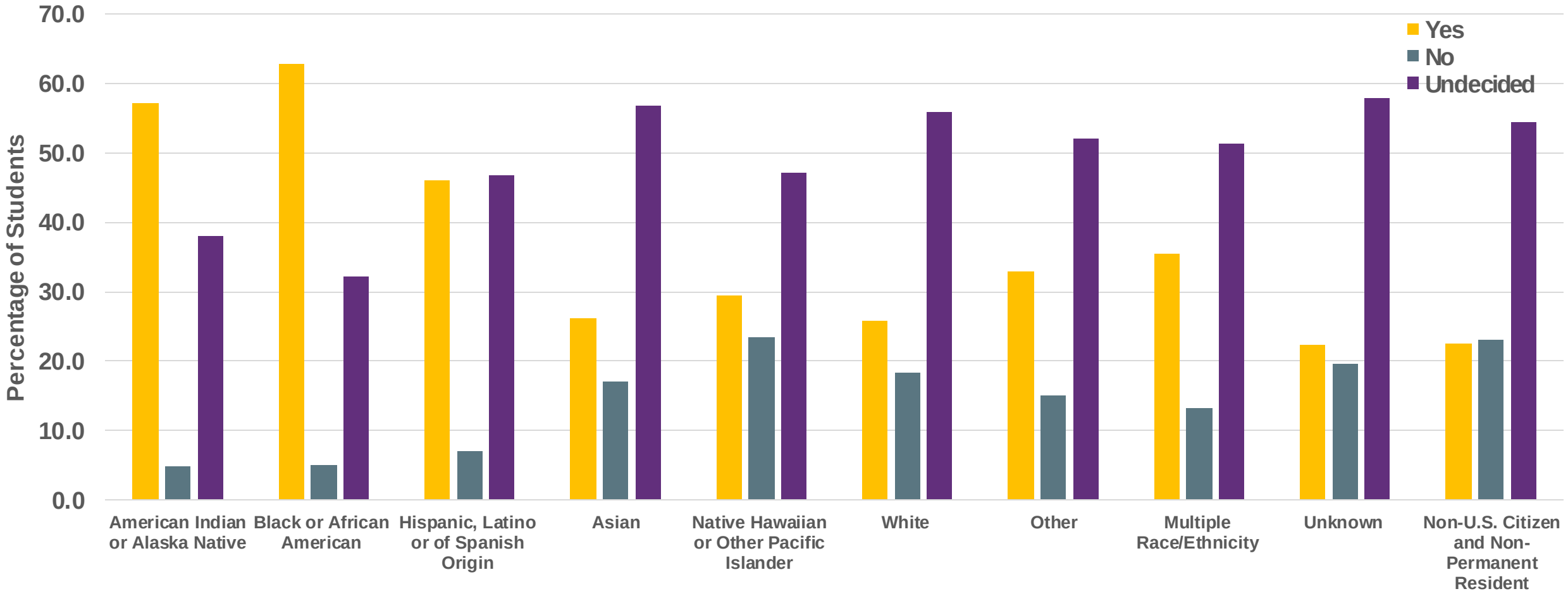
(GETTY IMAGES)

Workforce Diversity matters to the elimination of health disparities

- Eliminating health care disparities is consistent with the mission of the ACGME to improve health care and population health by assessing and enhancing the quality of resident physicians' education through advancements in accreditation and education
- ACGME envisions a health care system where the quadruple aim has been realized, aspiring to advance a transformed system of GME with global reach that is immersed in evidence-based, data-driven, clinical learning and care environments defined by excellence in clinical care, safety, cost effectiveness, professionalism, and diversity and inclusion
- Educating physicians who are more likely to serve underserved patients and locate in minority communities increases health care access and improves trust, communication and outcomes for those most at risk for health disparities

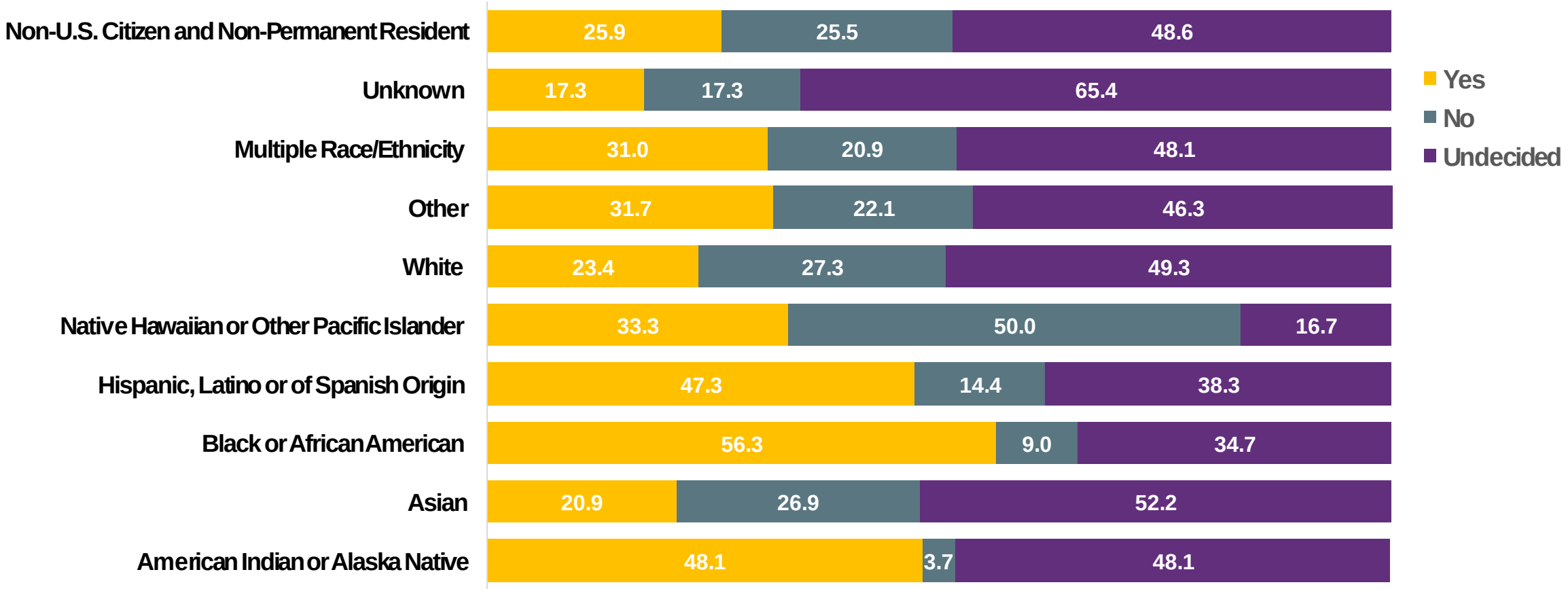
Adopted by ACGME Board of Directors September 2020

2019 MSQ Results: Do you plan to practice primarily in an underserved community?



AAMC: Data Warehouse, MSQ_R, GQ_R, and IND_IDENT_R tables as of December 30, 2020. MSQ_R last updated 1/9/2020. GQ_R last updated 8/26/2020. IND_IDENT_R last updated 12/3/2020.

2020 GQ Results: Do you plan to practice primarily in an underserved community?



AAMC: Data Warehouse, MSQ_R, GQ_R, and IND_IDENT_R tables as of December 30, 2020. MSQ_R last updated 1/9/2020. GQ_R last updated 8/26/2020. IND_IDENT_R last updated 12/3/2020.

Table 1. Unadjusted Association Between Disadvantaged Population and Receipt of Care From White vs Black, Hispanic, and Asian Physicians, Medical Expenditure Panel Survey, 2010

Patient Characteristic	No. (%)						
	Millions of Patients With a White Physician	Millions of Patients With a Black Physician	Unadjusted Odds Ratio (95% CI)[a]	Millions of Patients With a Hispanic Physician, No. (%)	Unadjusted Odds Ratio (95% CI)[b]	Millions of Patients With an Asian Physician, No. (%)	Unadjusted Odds Ratio (95% CI)[c]
All patients	62.2 (100.0)	3.3 (100.0)		5.9 (100.0)		9.8 (100.0)	
Non-Hispanic whites	53.2 (86.8)	1.1 (34.7)	1 [Reference]	2.4 (41.5)	1 [Reference]	5.2 (53.7)	1 [Reference]
Minorities	9.0 (13.2)	2.2 (65.3)	12.30 (8.30-18.00)	3.5 (58.5)	8.20 (5.98-11.23)	4.6 (46.3)	5.40 (4.16-6.99)
Black, non-Hispanic	4.1 (7.1)	1.9 (63.9)	23.24 (16.28-33.17)	0.5 (16.8)	2.65 (1.81-3.87)	1.0 (16.3)	2.56 (1.90-3.44)
Hispanic	3.1 (5.5)	0.1 (5.3)	0.96 (0.49-1.88)	2.7 (52.6)	19.04 (13.47-26.93)	1.1 (17.7)	3.68 (2.62-5.18)
Asian	0.9 (1.7)	0.1 (5.1)	3.06 (1.15-8.17)	0.3 (9.0)	5.63 (2.67 -11.86)	2.3 (31.2)	25.73 (16.92 -39.13)
Other	0.9 (1.7)	0.1 (7.4)	4.60 (1.78-11.94)	0.02 (1.1)	0.61 (0.17 -2.15)	0.2 (3.8)	2.25 (1.19-4.25)
Income							
High/middle	48.9 (78.5)	2.1 (64.5)	1 [Reference]	3.9 (65.5)	1 [Reference]	7.0 (70.9)	1 [Reference]
Low	13.4 (21.5)	1.2 (35.5)	2.03 (1.46-2.75)	2.1 (34.5)	1.92 (1.44-2.55)	2.8 (29.1)	1.49 (1.23-1.81)
Medicaid							
None	54.8 (93.2)	2.5 (78.4)	1 [Reference]	4.4 (81.8)	1 [Reference]	7.9 (85.2)	1 [Reference]
Medicaid	4.0 (6.8)	0.7 (21.6)	3.75 (2.72-5.18)	1.0 (18.2)	3.04 (2.29-4.04)	1.4 (14.8)	2.38 (1.85-3.06)
Any health insurance	58.8 (94.3)	3.1 (95.2)	1 [Reference]	5.4 (90.1)	1 [Reference]	9.3 (94.0)	1 [Reference]
Uninsured	3.5 (5.7)	0.1 (4.8)	0.83 (0.49-1.41)	0.6 (9.9)	1.83 (1.30-2.57)	0.6 (6.0)	1.07 (0.78-1.47)
English home language	60.6 (97.3)	3.2 (96.8)	1 [Reference]	3.9 (66.7)	1 [Reference]	7.9 (80.4)	1 [Reference]
Non-English home language	1.7 (2.7)	0.1 (3.2)	1.18 (0.51-2.69)	2.1 (33.4)	17.83 (12.80-24.82)	1.9 (19.6)	8.69 (6.19-12.19)

[a] Odds of patients in a demographic group reporting a black physician relative to non-Hispanic white patients reporting a black physician.

[b] Odds of patients in a demographic group reporting a Hispanic physician relative to non-Hispanic white patients reporting a Hispanic physician.

[c] Odds of patients in a demographic group reporting an Asian physician relative to non-Hispanic white patients reporting an Asian physician.

Marrast LM, et al. *JAMA Intern Med.* 2014;174(2):289-291.

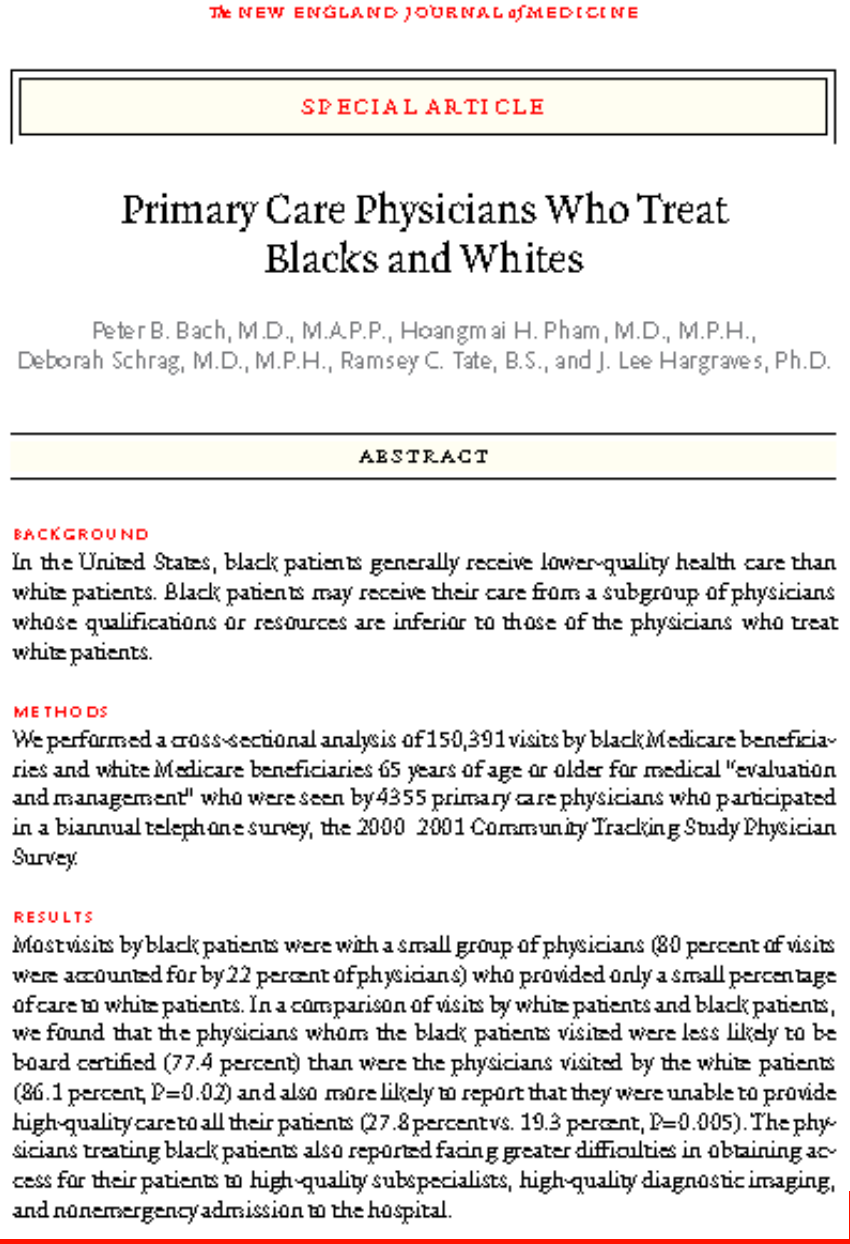
Primary care physicians who treat Blacks and Whites

Cross-sectional analysis of a nationally representative sample of 150,391 visits by black and white Medicare beneficiaries to 87,893 physicians

Most visits by black patients were with a small group of physicians (80% of visits were accounted for by 22% of physicians) whereas these same physicians (19,492) only saw 22% of white patients; 68,311 physicians saw 78% of white patients, but only 20% of black patients.

Physicians treating black patients report greater difficulties in obtaining access for their patients to subspecialists, diagnostic imaging, and nonemergency hospital admission.

A black physician was 39.9 times more likely to see a black patient than was a white physician



The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL ARTICLE

Primary Care Physicians Who Treat Blacks and Whites

Peter B. Bach, M.D., M.A.P.P., Hoangmai H. Pham, M.D., M.P.H., Deborah Schrag, M.D., M.P.H., Ramsey C. Tate, B.S., and J. Lee Hargraves, Ph.D.

ABSTRACT

BACKGROUND
In the United States, black patients generally receive lower-quality health care than white patients. Black patients may receive their care from a subgroup of physicians whose qualifications or resources are inferior to those of the physicians who treat white patients.

METHODS
We performed a cross-sectional analysis of 150,391 visits by black Medicare beneficiaries and white Medicare beneficiaries 65 years of age or older for medical "evaluation and management" who were seen by 4355 primary care physicians who participated in a biannual telephone survey, the 2000–2001 Community Tracking Study Physician Survey.

RESULTS
Most visits by black patients were with a small group of physicians (80 percent of visits were accounted for by 22 percent of physicians) who provided only a small percentage of care to white patients. In a comparison of visits by white patients and black patients, we found that the physicians whom the black patients visited were less likely to be board certified (77.4 percent) than were the physicians visited by the white patients (86.1 percent, P=0.02) and also more likely to report that they were unable to provide high-quality care to all their patients (27.8 percent vs. 19.3 percent, P=0.005). The physicians treating black patients also reported facing greater difficulties in obtaining access for their patients to high-quality subspecialists, high-quality diagnostic imaging, and nonemergency admission to the hospital.

Bach, PB et al. N Engl J Med 2004;351:575-84.

Increasing racial/ethnic diversity in the physician workforce

Isn't forcing people to work where they don't want to work

Isn't limiting patient access to the best physicians

Isn't forcing patients to only see doctors of their own race/ethnicity

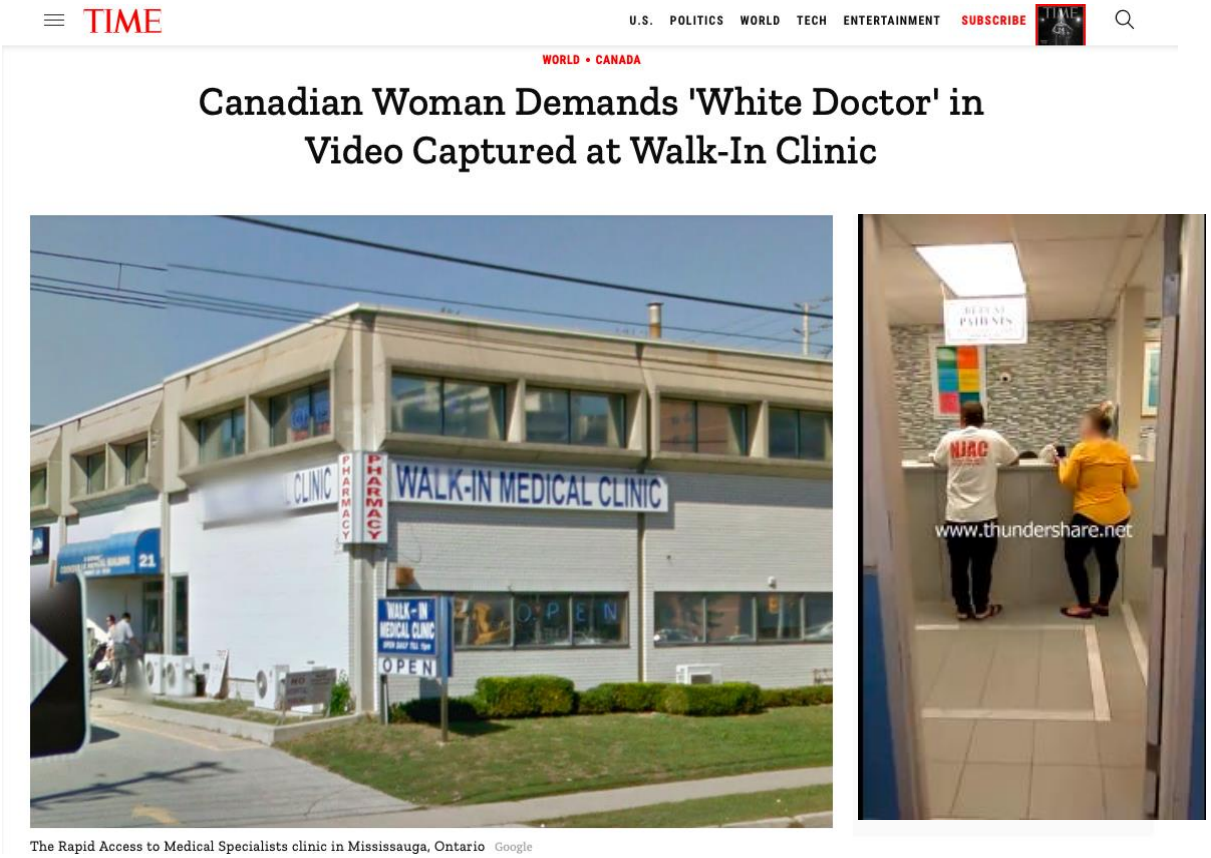
Proximity is an important factor, but not the only factor

Physicians' willingness to work in disadvantaged communities and to accept Medicare/Medicaid

Patient choice plays a role

What might be driving this preference?

- Trust, respect, communication, self-advocacy
- Intention to adhere to medical advice
- Patient satisfaction
- Improved clinical outcomes?

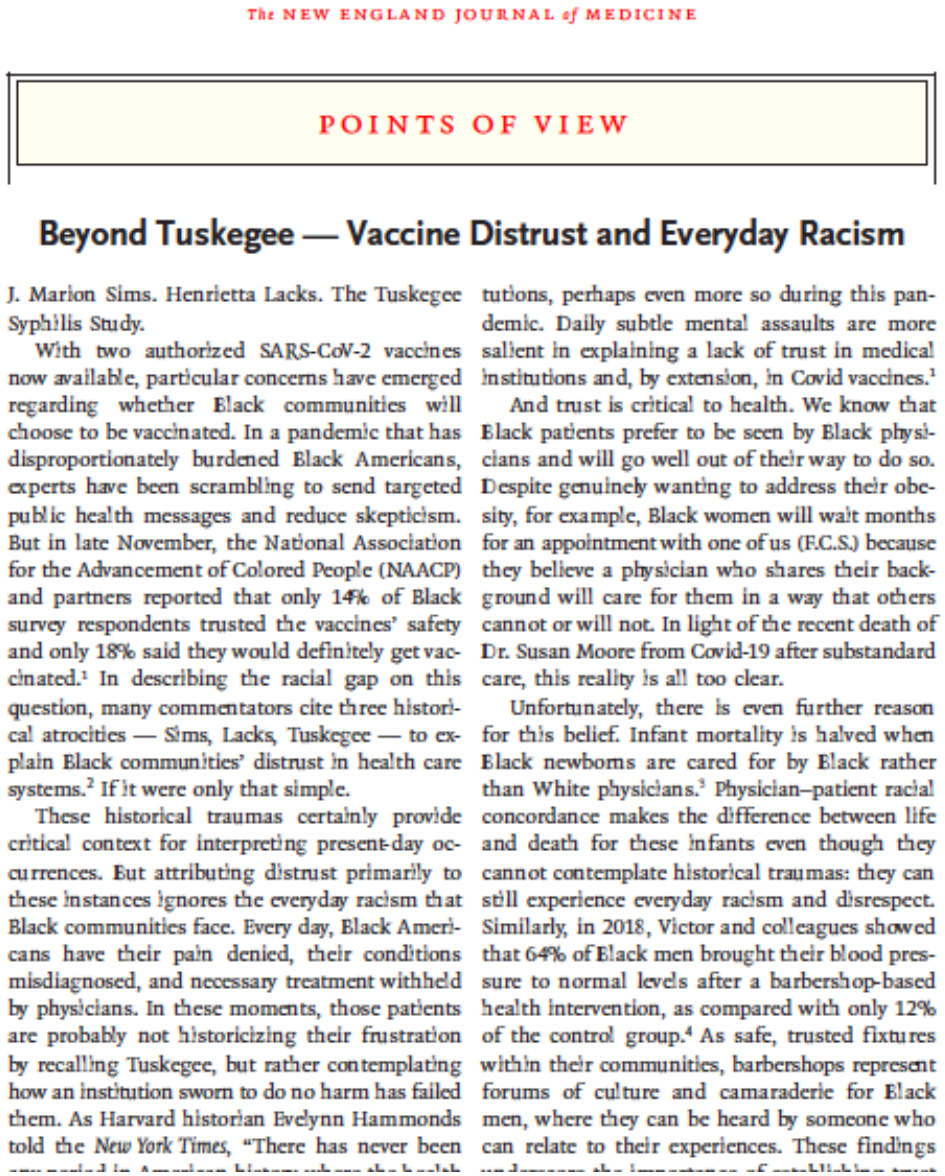


https://youtu.be/Zl5JKDIlsbU

Vaccine hesitancy among minoritized individuals

Everyday racism can be tackled in the present.

Framing the conversation about distrust in Covid vaccines in terms of everyday racism rather than historical atrocities may increase underserved communities' willingness to be vaccinated.



The NEW ENGLAND JOURNAL of MEDICINE

POINTS OF VIEW

Beyond Tuskegee — Vaccine Distrust and Everyday Racism

J. Marion Sims. Henrietta Lacks. The Tuskegee Syphilis Study.

With two authorized SARS-CoV-2 vaccines now available, particular concerns have emerged regarding whether Black communities will choose to be vaccinated. In a pandemic that has disproportionately burdened Black Americans, experts have been scrambling to send targeted public health messages and reduce skepticism. But in late November, the National Association for the Advancement of Colored People (NAACP) and partners reported that only 14% of Black survey respondents trusted the vaccines' safety and only 18% said they would definitely get vaccinated.[1] In describing the racial gap on this question, many commentators cite three historical atrocities — Sims, Lacks, Tuskegee — to explain Black communities' distrust in health care systems.[2] If it were only that simple.

These historical traumas certainly provide critical context for interpreting present-day occurrences. But attributing distrust primarily to these instances ignores the everyday racism that Black communities face. Every day, Black Americans have their pain denied, their conditions misdiagnosed, and necessary treatment withheld by physicians. In these moments, those patients are probably not historicizing their frustration by recalling Tuskegee, but rather contemplating how an institution sworn to do no harm has failed them. As Harvard historian Evelynn Hammonds told the *New York Times*, "There has never been

tutions, perhaps even more so during this pandemic. Daily subtle mental assaults are more salient in explaining a lack of trust in medical institutions and, by extension, in Covid vaccines.[1]

And trust is critical to health. We know that Black patients prefer to be seen by Black physicians and will go well out of their way to do so. Despite genuinely wanting to address their obesity, for example, Black women will wait months for an appointment with one of us (F.C.S.) because they believe a physician who shares their background will care for them in a way that others cannot or will not. In light of the recent death of Dr. Susan Moore from Covid-19 after substandard care, this reality is all too clear.

Unfortunately, there is even further reason for this belief. Infant mortality is halved when Black newborns are cared for by Black rather than White physicians.[3] Physician–patient racial concordance makes the difference between life and death for these infants even though they cannot contemplate historical traumas: they can still experience everyday racism and disrespect. Similarly, in 2018, Victor and colleagues showed that 64% of Black men brought their blood pressure to normal levels after a barbershop-based health intervention, as compared with only 12% of the control group.[4] As safe, trusted fixtures within their communities, barbershops represent forums of culture and camaraderie for Black men, where they can be heard by someone who can relate to their experiences. These findings

Bajaj, S.S. and Stanford, F.C., 2021. Beyond Tuskegee—Vaccine Distrust and Everyday Racism. *NEJM*, p.e11.

Concordance and Communication

Information seeking was higher among Black participants after they viewed messages from Black physicians

Supports the important role that health professionals and other leaders in communities of color play in enhancing the acceptance of COVID-19 vaccination and other interventions

Concordance across dimensions other than ethnicity may be more important for Latinx patients

Ensuring that messages are accurate, available, and comprehensible is insufficient —recipients must also trust the messenger. Trust is most likely when information is delivered by a messenger who is known and has a positive relationship with the community.

Annals of Internal Medicine ORIGINAL RESEARCH

Comparison of Knowledge and Information-Seeking Behavior After General COVID-19 Public Health Messages and Messages Tailored for Black and Latinx Communities

A Randomized Controlled Trial

Marcella Alsan, MD, MPH, PhD*; Fatima Cody Stanford, MD, MPH, MPA*; Abhijit Banerjee, PhD; Emily Breza, PhD; Arun G. Chandrasekhar, PhD; Sarah Eichmeyer, MA; Paul Goldsmith-Pinkham, PhD; Lucy Ogbu-Nwobodo, MD, MS, MAS; Benjamin A. Olken, PhD; Carlos Torres, MD; Anirudh Sankar, MMath; Pierre-Luc Vautrey, MSc; and Esther Duflo, PhD

Background: The paucity of public health messages that directly address communities of color might contribute to racial and ethnic disparities in knowledge and behavior related to coronavirus disease 2019 (COVID-19).

Objective: To determine whether physician-delivered prevention messages affect knowledge and information-seeking behavior of Black and Latinx individuals and whether this differs according to the race/ethnicity of the physician and tailored content.

Design: Randomized controlled trial. (Registration: Clinical Trials.gov, NCT04371419; American Economic Association RCT Registry, AEARCTR-0005789)

Setting: United States, 13 May 2020 to 26 May 2020.

Participants: 14 267 self-identified Black or Latinx adults recruited via Lucid survey platform.

Intervention: Participants viewed 3 video messages regarding COVID-19 that varied by physician race/ethnicity, acknowledgement of racism/inequality, and community perceptions of mask-wearing.

Measurements: Knowledge gaps (number of errors on 7 facts on COVID-19 symptoms and prevention) and information-seeking behavior (number of Web links demanded out of 10 proposed).

Results: 7174 Black (61.3%) and 4520 Latinx (38.7%) participants were included in the analysis. The intervention reduced the knowledge gap incidence from 0.085 to 0.065 (incidence rate ratio, [IRR], 0.737 [95% CI, 0.600 to 0.874]) but did not significantly change information-seeking incidence. For Black participants, messages from race/ethnic-concordant physicians increased information-seeking incidence from 0.329 (for discordant physicians) to 0.357 (IRR, 1.085 [CI, 1.026 to 1.145]).

Limitations: Participants' behavior was not directly observed, outcomes were measured immediately postintervention in May 2020, and online recruitment may not be representative.

Conclusion: Physician-delivered messages increased knowledge of COVID-19 symptoms and prevention methods for Black and Latinx respondents. The desire for additional information increased with race-concordant messages for Black but not Latinx respondents. Other tailoring of the content did not make a significant difference.

Primary Funding Source: National Science Foundation; Massachusetts General Hospital; and National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases.

Ann Intern Med. doi:10.7326/M20-6141 Annals.org
For author, article, and disclosure information, see end of text.
This article was published at Annals.org on 21 December 2020.
* Drs. Alsan and Stanford contributed equally.

Alsan, Marcella, et al. "Comparison of Knowledge and Information-Seeking Behavior After General COVID-19 Public Health Messages and Messages Tailored for Black and Latinx Communities: A Randomized Controlled Trial." *Annals of internal medicine* (2020).

Cooper, Lisa A., and Catherine M. Stoney. "Messages to Increase COVID-19 Knowledge in Communities of Color: What Matters Most?." *Annals of Internal Medicine* (2020).

Does Diversity Matter for Health?

- Black subjects were more likely to talk with a black doctor about their health problems
- Black doctors are more likely to write additional notes about the subjects
- CV disease impact was significant, leading to a 19% reduction in the black-white male gap in cardiovascular mortality
- Diabetes, cholesterol screening and invasive testing were up 20%
- Flu shots were significantly more likely

Does Diversity Matter for Health? Experimental Evidence from Oakland*

Marcella Alsan† Owen Garrick‡ Grant Graziani§

June 2018

Abstract

We study the effect of diversity in the physician workforce on the demand for preventive care among African-American men. Black men have the lowest life expectancy of any major demographic group in the U.S., and much of the disadvantage is due to chronic diseases which are amenable to primary and secondary prevention. In a field experiment in Oakland, California, we randomize black men to black or non-black male medical doctors and to incentives for one of the five offered preventives — the flu vaccine. We use a two-stage design, measuring decisions about cardiovascular screening and the flu vaccine before (ex ante) and after (ex post) meeting their assigned doctor. Black men select a similar number of preventives in the ex-ante stage, but are much more likely to select every preventive service, particularly invasive services, once meeting with a doctor who is the same race. The effects are most pronounced for men who mistrust the medical system and for those who experienced greater hassle costs associated with their visit. Subjects are more likely to talk with a black doctor about their health problems and black doctors are more likely to write additional notes about the subjects. The results are most consistent with better patient-doctor communication during the encounter rather than differential quality of doctors or discrimination. Our findings suggest black doctors could help reduce cardiovascular mortality by 16 deaths per 100,000 per year — leading to a 19% reduction in the black-white male gap in cardiovascular mortality.

JEL Classification Codes: I12, I14, C93
Keywords: Homophily, social distance, mistrust, behavioral misperceptions, health gradients

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M Alsan, O Garrick, and GC Graziani, NBER Working Paper No. 24787, June 2018, Revised September 2018

Race matters in perinatal mortality

1.8 million hospital births in Florida between 1992 and 2015; Black newborn deaths are 3x greater than that of whites

Patient–physician concordance benefitted Black newborns with Black physicians by 53- 56% compared to discordant care

No significant improvement in maternal mortality based on racial concordance

Physician–patient racial concordance and disparities in birthing mortality for newborns

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Edited by Christopher W. Kuzawa, Northwestern University, Evanston, IL, and approved July 16, 2020 (received for review August 2, 2019)

Recent work has emphasized the benefits of patient–physician concordance on clinical care outcomes for underrepresented minorities, arguing it can ameliorate outgroup biases, boost communication, and increase trust. We explore concordance in a setting where racial disparities are particularly severe: childbirth. In the United States, Black newborns die at three times the rate of White newborns. Results examining 1.8 million hospital births in the state of Florida between 1992 and 2015 suggest that newborn–physician racial concordance is associated with a significant improvement in mortality for Black infants. Results further suggest that these benefits manifest during more challenging births and in hospitals that deliver more Black babies. We find no significant improvement in maternal mortality when birthing mothers share race with their physician.

racial bias | birthing outcomes | concordance | mortality | health care

The relationship between a decision maker's ascriptive characteristics and advocates who do or do not share those characteristics has long been a source of intense scrutiny by scholars across a wide range of disciplines. Researchers in sociology have noted the benefits of female leadership for young women working at firms (1, 2). Management scholars note increased leniency in enforcing regulatory compliance when inspectors and their targets share similar backgrounds (3). Economists have shown that academic performance is higher when students share race with teachers (4). In addition, legal scholars have found higher incarceration rates among defendants paired with judges of a different race (5).

However, despite the prevalence of these findings, little evidence on the effect of gender and racial concordance in medicine existed until recently. Although received work indicates approaches to address this pressing social issue. Furthermore, to the extent that newborns cannot verbally communicate with their physician, we are able to observe the effects of concordance without trust or communication issues affecting the patient–physician relationship. Inasmuch as prior research has struggled to disentangle the mechanisms behind concordance's effect (10, 26), the setting allows us to explore concordance in the absence of one invoked mechanism—communication. Thus, if concordance effects manifest, we are able to rule out communication as the exclusive mechanism.

Research posits that racial concordance between a newborn and their physician may mitigate disparities for at least two reasons. First, research suggests concordance is not only salient for adults. Indeed, a growing body of literature explores the question of whether actors exhibit different levels of bias toward both children and adults. Wolf et al. (27), for example, examine whether adults' spontaneous racial bias toward children differs from their spontaneous racial bias toward adults, finding that people have significantly greater favorability toward their ingroup. Strikingly, this bias was exhibited equally toward adults and children. It is therefore possible that such an effect might manifest exclusively as a function of spontaneous bias. At the same time, extant research indicates that mortality across White and Black newborns is starkly different (28), suggesting Black newborns may have different needs and be more medically challenging to treat due to social risk factors and cumulative racial and socioeconomic disadvantages of Black pregnant women (29). To the extent that physicians of a social outgroup are more likely to be aware of the challenges and issues that arise when treating their group (10, 30, 31), it stands to reason that these physicians may be more equipped to treat patients with complex needs.

PNAS September 1, 2020 117 (35) 20975-20976

Race-conscious professionalism

Describes the process black professionals confront when attempting to navigate the competing demands of professionalism, racial obligations, and personal integrity

Hispanic and black physicians tend to not leave minority communities once they settle in such areas, and when they move, they tend to move to areas similar to those that they are from.

Wilkins D. Identities and roles: Race, recognition, and professional responsibility. MD Law Rev. 1998. 57:1502–1595.

Brown T et al. Does the under- or overrepresentation of minority physicians across geographical areas affect the location decisions of minority physicians? Health Serv Res 2009 44(4):1290-308

Perspective

Race-Conscious Professionalism and African American Representation in Academic Medicine

Brian W. Powers, Augustus A. White, MD, PhD, Nancy E. Oriol, MD, and Sachin H. Jain, MD, MBA

Abstract

African Americans remain substantially less likely than other physicians to hold academic appointments. The roots of these disparities stem from different extrinsic and intrinsic forces that guide career development. Efforts to ameliorate African American underrepresentation in academic medicine have traditionally focused on modifying structural and extrinsic barriers through undergraduate and graduate outreach, diversity and inclusion initiatives at medical schools, and faculty development programs. Although essential, these initiatives fail to confront the unique intrinsic forces that shape career development. America's ignoble history of violence, racism, and exclusion exposes African American physicians to distinct personal pressures and motivations that shape professional development and career goals. This article explores these intrinsic pressures with a focus on their historical roots; reviews evidence of their effect on physician development; and considers the implications of these trends for improving African American representation in academic medicine. The paradigm of "race-conscious professionalism" is used to understand the dual obligation encountered by many minority physicians not only to pursue excellence in their field but also to leverage their professional stature to improve the well-being of their communities. Intrinsic motivations introduced by race-conscious professionalism complicate efforts to increase the representation of minorities in academic medicine. For many African American physicians, a desire to have their work focused on the community will be at odds with traditional paths to professional advancement. Specific policy options are discussed that would leverage race-conscious professionalism as a draw to a career in academic medicine, rather than a force that diverts commitment elsewhere.

Notwithstanding important progress, substantial challenges remain in ameliorating racial inequalities in health and health care in the United States. One enduring challenge is the underrepresentation of minority populations, especially African Americans, among the faculty at academic medical centers (AMCs). At each stage of career development, African Americans remain less likely than other physicians to hold academic appointments. Despite constituting 13% of the American population as of 2014, African Americans accounted for only 7.4% of assistant professors, 3.8% of associate professors,

In this Perspective, we explore the intrinsic pressures that contribute to African American underrepresentation at AMCs with a focus on their historical roots; review evidence of their effect on physician career development; and consider the implications for AMCs seeking to improve African American representation among their faculties. We conclude by providing specific policy options.

Extrinsic Versus Intrinsic Forces in Shaping Career Development as Factors Contributing to Underrepresentation

medicine have traditionally been focused on modifying these extrinsic forces through tactics such as undergraduate and graduate outreach, diversity and inclusion initiatives at medical schools, and faculty development programs.

Although these are essential programs, we believe the prevailing focus on extrinsic factors has obscured the role intrinsic forces play on the decision to pursue and sustain a career in academic medicine. America's ignoble history of violence, racism, and exclusion exposes African American physicians to distinct personal pressures and motivations that

Powers, BW et al. Academic Medicine 2016. 91(7):913-5

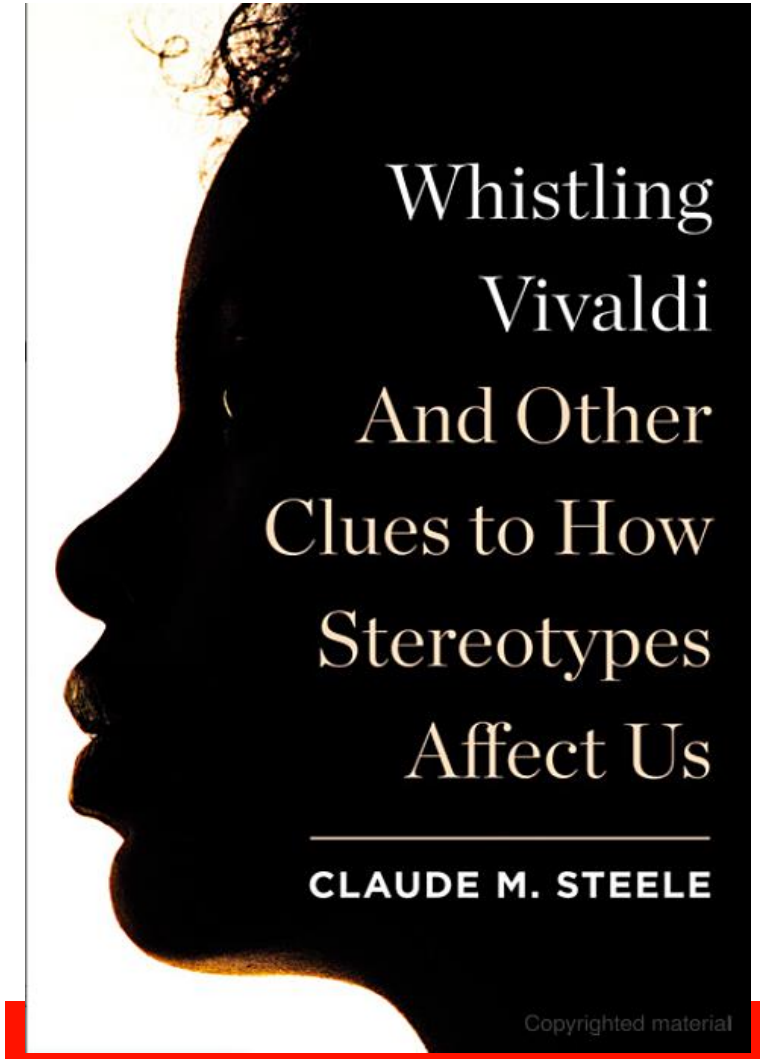
Does a biomedical faculty that resembles the population improve health care?

Minority medical scholars tend to study problems that impact minority communities (Ginther et al. 2011 Science 333:1015)

Racial congruence may play a role in recruitment of minorities in clinical trials (Fryer et al. (2016) *Qualitative Health Research*, *26*(6), 830–841)

Minority faculty serve as role models, mentors and advocates for minority students in the educational process (Pololi LH, et al. (2013) Academic Medicine 88: 1308–1314 and many others)

The role as teacher dispels bias and racism



- Disrupt false stereotypes through humanizing the other, building empathy
- Demystify white intellectual superiority
- Mitigate stereotype threat[1]
- Disrupt imposter syndrome and internalized racism
- Reinforces/restores confidence of minoritized learners

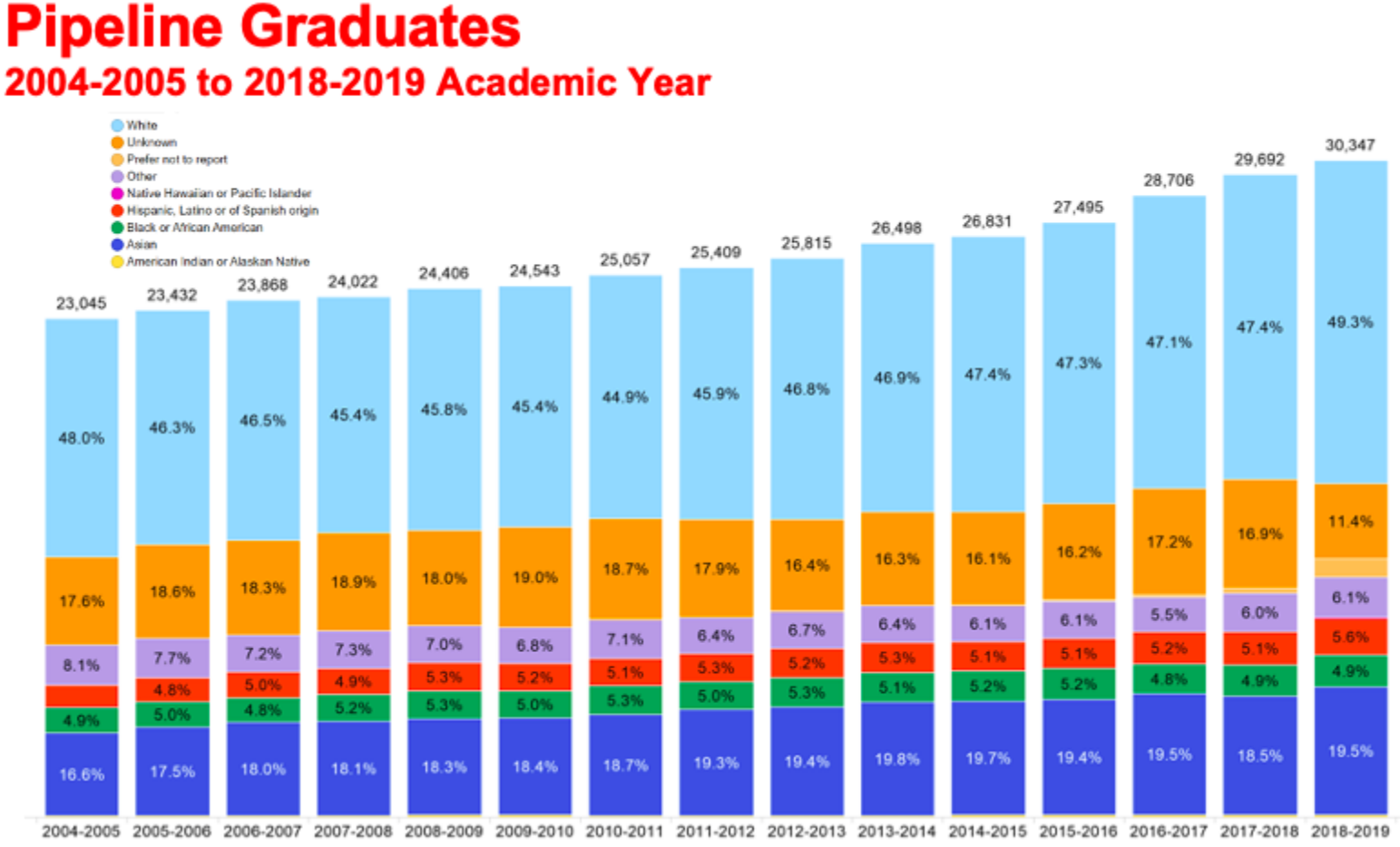
[1]Steele, Claude M., and Joshua Aronson. "Stereotype threat and the intellectual test performance of African Americans." *Journal of personality and social psychology* 69, no. 5 (1995): 797.

Does this mean that the only solution to eliminate racial and ethnic health disparities is to increase diversity in the workforce?

Disparity in physician number is too wide not to educate all

Patients are free to choose whomever they prefer

All physicians should be comfortable in taking care of anyone



Review of Common Program Requirements

Concurrent with the work of the Planning Committee, the Board was driving a review of its Common Program Requirements overall. This was mostly driven by Section VI and modification of the clinical and educational work hours, but included other areas of importance

Three new program requirements in Sections I.C, V and VI.B.6 bear directly on areas identified by the Planning Committee

Changes went into effect 1 July 2019

New Common Program Requirement I.C.

I.C. The Program, in partnership with its Sponsoring Institution, **must** engage in practices that focus on mission-driven, ongoing, systematic recruitment and retention of a diverse workforce of residents, fellows (if present), faculty members, senior administrative staff members, and other relevant members of its academic community. (Core)

"It's not a great mission statement, but we'll revise it if things get better."

Who is the target of diversity?

Focused primarily on racial and ethnic underrepresented minority individuals but is inclusive of diversity across a broad range of categories including gender, orientation, religion, age, ability, national origin or ancestry, among others.

The mission of the ACGME is to improve health care and population health by assessing and advancing the quality of resident physicians' education through accreditation and education.

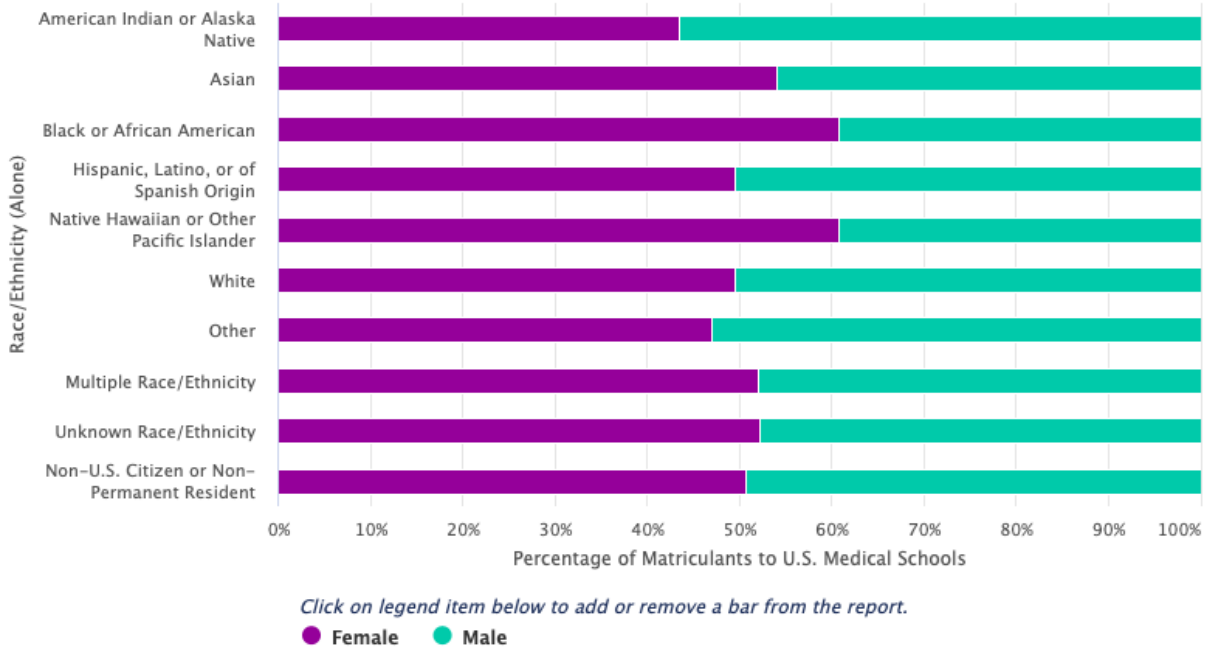
Focus is to provide a workforce that is consistent with accomplishing this mission

AAMC's Underrepresented in Medicine Definition (URiM)

- Before 2003: URM (Blacks, Mexican-Americans, Native Americans (American Indians, Alaska Natives, and Native Hawaiians), and mainland Puerto Ricans.
- The AAMC remains committed to ensuring access to medical education and medicine-related careers for individuals from these four historically underrepresented racial/ethnic groups.
- March 19, 2004, the AAMC Executive Committee adopted a clarification to its definition of "underrepresented in medicine" (URiM)
- "Underrepresented in medicine means those racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general population."
  - Shift in focus from a national perspective to a regional or local perspective on underrepresentation
  - Shift from a fixed aggregation of four groups to a continually evolving underlying reality of demographics of society and the profession
  - Data collection and reporting on a broader range of racial and ethnic self-descriptions

Diversity in Context

Figure 9. Percentage of matriculants to U.S. medical schools by race/ethnicity (alone) and sex, academic year 2018–2019.



Science
22 Nov 2019

EDITORIAL

The context of diversity

The term "diversity," which came about in connection with the passage of the U.S. Civil Rights Act of 1964, has been expanding to include an ever-growing list of identities—from race, gender, and sexual orientation to physical appearance, belief systems, thought styles, socioeconomic status, and rural/urban geographic location, among others. This is a welcome extension of representation, but this added texture has a downside—it threatens to muddle targets and obscure actions when achieving diversity is the goal. This consequence is particularly serious in the context of addressing equity for specific underrepresented racial and ethnic groups. Next week, the U.S. National Academies will convene the Roundtable on Black Men and Black Women in Science, Engineering and Medicine to focus on confronting issues that threaten the future of Blacks broadly in science. Forging systemic changes that bring Black diversity at all education and career levels will hopefully bring racial equity to practices in these fields and in doing so, expand the benefits of science, engineering, and medicine to society.

There are unintended negative consequences of the expanded definition of diversity. With so many groups, success in achieving diversity is increasingly measured in a pick-and-choose manner, where progress is defined through any lens that shows success. Also, with so many groups, diversity is often described through the lens of gender, leaving other groups as seemingly less important, or unimportant. And with so many groups, it has become easier for diversity efforts to disregard the historical and present drivers of discrimination that concepts of diversity began with. In other words, the greater context of inclusion and equity can get lost, making strides to diversify meaningless. The latter point is particularly relevant to Blacks in the United States who have experienced slavery, legally enforced segregation and discrimination, and now battle conscious and unconscious racism, and mass incarceration. Institutionalized racism, past and present, has resulted in the disregard, disrespect, and dismissal of Black people from all walks of life, and this is true in science, engineering, and medicine.

These may be factors in the crisis-level changes seen across the academic landscape of Blacks in science, engineering, and medicine. For example, the number of Black males entering medical school between 2013 and 2014 in the United States was only 500, a historic low. Black men represented only 3.7% of Blacks entering medical school, which represented only 2.5% of all students entering medical school. This occurred during a historic increase in the number of medical schools in the nation. While this was happening at the trainee level, the U.S. National Academy of Medicine's most recent election in 2019 had no Black men in a class that recently increased by over 30% in size. Thus, there is a crisis taking place at all points in the medical educational and career spectrum for this particular group.

> "Embracing the expanding definition of diversity is easy, but using the word with focus...for achieving diversity will take great attention."

In response to this downward trend of Blacks in science and medicine, a number of individuals, including me, convened a U.S. National Academies workshop in 2017 that focused specifically on the growing absence of Black men in medicine in the United States. The ideas became a blueprint for actions that address not only Black men in medicine, but also the trajectory for Black women, and issues in engineering and science overall.

Embracing the expanding definition of diversity is easy, but using the word with focus so as not to weaken the paths for achieving diversity will take great attention. Next week, as leaders from academia, industry, government, foundations, and other nonprofits gather at the U.S. National Academy for this historic first meeting, the goal will be to begin to understand the barriers, explore opportunities, and develop actionable plans to increase the number of Blacks pursuing science, engineering, and medicine. The Roundtable will have a laser focus on racism and bias, early to graduate education, financing, public advocacy, mentorship, and mental health/behavioral factors. We're at the starting point of a roadmap that could potentially break cycles so rooted in the past for Blacks, and perhaps also help other groups navigate their pursuit of success in science too.

—Cato T. Laurencin

Cato T. Laurencin is the Albert and Wilda Van Dusen Distinguished Endowed Professor of Orthopaedic Surgery, and the chief executive officer of the Connecticut Convergence Institute for Translation in Regenerative Engineering at UConn Health, Farmington, Connecticut, USA. He is the University Professor at the University of Connecticut, Storrs, Connecticut, USA. laurencin@uchc.edu

Science 366 (6468), 929. DOI: 10.1126/science.aba2319

Black Men in White Coats

FORBES.COM

Documentary Calls Out Stereotypes, Issues Urgent Call-To-Action For A Black Male Physician Pipeline

Dr. Dale Okorodudu, UT Southwestern

Number of active residents 2019 by school type

Table 6. Race and Hispanic Ethnic Origin of Resident Physicians on Duty December 31, 2019, by Type of Medical School From Which They Graduated[a]

	No. (%)							
Race[b]	US and Canadian allopathic		US osteopathic		Non-US		Total	
Black	5193 (64.8)	[6.0]	533 (6.7)	[2.4]	2283 (28.5)	[7.1]	8009	[5.7]
American Indian/Alaska Native	152 (80.0)	[0.2]	19 (10.0)	[0.1]	19 (10.0)	[0.06]	190	[0.14]
White	52 660 (68.4)	[60.9]	14 329 (18.6)	[65.2]	9975 (13.0)	[30.9]	76 964	[54.7]
Asian	19 387 (51.7)	[22.4]	4423 (11.8)	[20.1]	13 667 (36.5)	[42.4]	37 477	[26.6]
Native Hawaiian/Pacific Islander	56 (55.4)	[0.06]	18 (17.8)	[0.08]	27 (26.7)	[0.08]	101	[0.07]
Multiracial	3107 (65.5)	[6.0]	656 (13.8)	[3.0]	977 (20.6)	[3.0]	4740	[3.4]
Other/unknown	5855 (44.6)	[3.6]	1994 (15.2)	[9.1]	5286 (40.2)	[16.4]	13 135	[9.3]
Ethnic origin[b]								
Hispanic	7177 (60.5)	[8.3]	846 (7.1)	[3.8]	3837 (32.4)	[11.9]	11 860	[8.4]
Non-Hispanic	79 233 (61.5)	[91.7]	21 126 (16.4)	[96.1]	28 397 (22.1)	[88.1]	128 756	[91.6]
Total[c]	86 410 (61.5)		21 972 (15.6)		32 234 (22.9)		140 616	

[a] Includes resident physicians on duty as of December 31, 2019, reported through the 2019 National GME Census. A total of 195 programs (1.6%) did not provide updated information on residents by March 1, 2020. For these nonresponding programs, resident physicians reported from the last received survey were moved into their next year in the program or graduated.

[b] The 2019 National GME Census imported self-designated race/ethnicity from Association of American Medical Colleges databases where available. "Multiracial" refers to residents who have self-identified as more than 1 race. A person of Hispanic ethnicity may be of any race.

[c] These total data apply to each subsection separately (ie, total for race and total for ethnic origin).

Modified from Brotherton S & Etzel S. *JAMA.* 2020; 324(12):1230-50

Table 8. Racial and Ethnic Origin of Resident Physicians in ACGME-Accredited and in Combined Specialty Graduate Medical Education (GME) Programs on Duty December 31, 2019, by Specialty

	No. of resident physicians[a,b]								
	Black	American Indian/Alaska Native	White	Asian	Native Hawaiian/Pacific Islander	Multi-racial	Other/ unknown	Hispanic origin	Total
Family medicine	1038	38	7339	3073	18	461	1264	1208	13 231
Clinical informatics	0	0	3	2	0	3	2	0	10
Geriatric medicine	0	0	17	16	0	1	3	1	37
Sports medicine	14	0	162	30	1	4	16	18	227
Hospice and palliative medicine[c]	10	0	182	70	0	5	46	24	313
Internal medicine	1737	29	11 588	10 267	18	731	3511	2443	27 881
Adult congenital heart disease	0	0	13	4	0	4	1	1	22
Advanced heart failure and transplant cardiology	2	0	30	46	0	2	6	5	86
Cardiovascular disease	160	2	1344	1105	2	119	246	184	2978
Clinical cardiac electrophysiology	13	0	98	95	0	9	13	9	228
Clinical informatics	4	0	13	14	0	1	4	1	36
Critical care medicine	12	0	122	80	0	5	31	17	250
Endocrinology, diabetes, and metabolism	26	0	245	299	1	22	67	73	660
Gastroenterology	84	2	725	727	1	52	143	100	1734
Geriatric medicine	16	0	85	95	0	5	24	19	225
Hematology	1	0	5	9	0	3	3	1	21
Hematology and medical oncology	70	0	833	716	0	51	114	118	1784
Infectious disease	48	1	390	232	0	30	86	85	787
Interventional cardiology	13	0	152	120	0	15	23	25	323
Medical oncology	1	0	10	26	0	1	5	2	43
Nephrology	50	0	281	379	1	30	94	85	835
Pulmonary disease	5	0	24	39	0	1	6	17	75
Pulmonary disease and critical care medicine	68	1	1015	655	4	74	114	125	1931
Rheumatology	19	0	246	168	0	16	50	36	499
Transplant hepatology	2	0	18	26	0	2	3	2	51
Medical genetics and genomics	0	0	34	16	0	1	12	9	63
Medical biochemical genetics	1	0	14	0	0	0	1	2	16
Molecular genetic pathology	0	0	19	17	0	2	4	1	42

Brotherton S & Etzel S. *JAMA.* 2020; 324(12):1230-50

What programs can do to increase diversity

Increase diversity and provide an inclusive learning environment

View increasing diversity as a long-term strategy:

- Increase the number of diverse learners in pre-residency (Pathway programs)
- Work cooperatively with other programs in your institution or within your specialty to drive diverse individuals into the medical profession
- Recruit and try to increase your current numbers, but don't compete against one another – emphasize cooperation not competition
- If you show active work in pathway programs, eventually showing tracking of participants, even if your residency numbers don't increase for a number of years, your program will still achieve substantial compliance

Opportunities for Partnership

Science Technology Engineering and Math ⟶ STEM and Medicine STEMM

Many community programs focus on early learners but don't feel comfortable connecting with hospitals and academic medical centers in their communities- reach out to them

Half of the programs ACGME accredits are not directly associated with a medical school – If these programs actively engage with STEMM programs, we can greatly enhance community partnerships

AMCs have resources and can provide mentors and opportunities

AMCs have also constructed barriers and can remove them to enhance access

What happens when you increase diversity in an environment unaccustomed to it?

Matriculation of residents from underrepresented groups requires social adaptation of the learning environment:

- Mitigate cultural underexposure or indifference
- Cease stereotypical projections
- Reduce of environmental elements that trigger imposter syndrome
- Effectively address uncivil behavior

Diversity education, implicit bias training and mandatory demonstration of competence often engender resistance and resentment in the environment. Work is needed in medical education to determine:

- Most effective training (who and how best) and settings (where and why)
- Persistence of training (when)

Naming racism in order to dismantle it

- Institutionalized/Structural
- Personally-mediated
- Internalized

https://www.youtube.com/watch?v=GNhcY6fTyBM

Structural Racism – Racism without Racists

- Woven into society's fabric
- Demonstrates how past mistreatment drives current inequities
- Focused much more on outcomes than on bad actors
- Measured by outcomes like disparities
- May appear as subtle, unconscious, unintended structures or normative values that are based upon privileges afforded primarily to the dominant culture – White privilege: Unasked for and unearned
- Remedy requires a change in social structures

The greatest trick the Devil ever pulled was convincing the world he didn't exist…

- Keyser Söze, by way of Charles Baudelaire

Addressing Harmful Bias and Eliminating Discrimination in Health Professions Learning Environments

- Build an institutional culture of fairness, respect and anti-racism by making diversity equity and inclusion top priorities
- Develop, assess, and improve systems to mitigate harmful biases and to eliminate racism and all other forms of discrimination
- Integrate equity into health professions curricula, explicitly aiming to mitigate the harmful effects of bias, exclusion, discrimination, racism, and all other forms of oppression
- Increased the numbers of health professions students, trainees, faculty, an institutional administrators and leaders from historically marginalized and excluded populations

JOSIAH MACY JR. FOUNDATION

CONFERENCE RECOMMENDATIONS
February 24–27, 2020
Atlanta, Georgia

Closing the gap won't be easy

To achieve meaningful change, people must be willing to take uncomfortable steps. It's human nature to want to stick with what's safe and familiar.

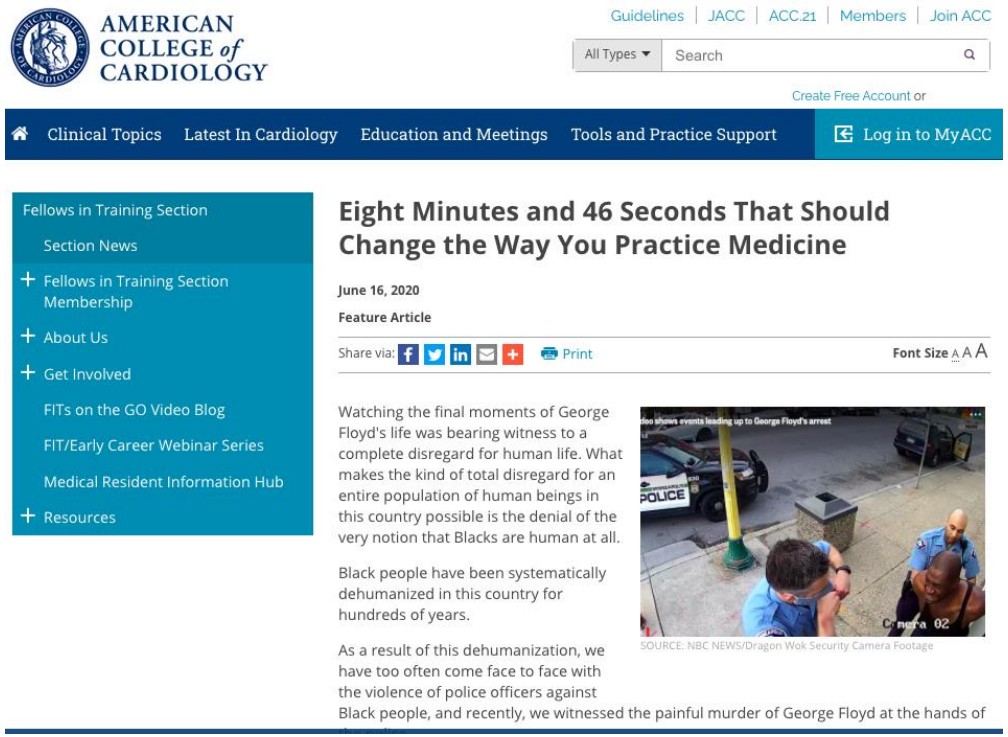
I [will] urge people to do uncomfortable things because that's the only way we make progress. Justice has never happened, equality has never been won, breakthroughs in science or in human relations have never been achieved by people who only do things that are comfortable and convenient. We cannot increase the justice quotient or the health quotient if we insist on only doing things that are easy.

- Bryan Stevenson at AAMC 2019

What can medicine do in response?

So if George had come to see you, instead of writing, "This is a 56-year-old male with a history of no-shows and noncompliance with his medications," consider whether the note should begin with this acknowledgement in your mind,

"This is a 56-year-old African American man, recently violated, burdened by violence, managing unimaginable stressors, yet despite all of those barriers to him being here, he presents for one fair shot at his health today."



This article was authored by **Gmerice Hammond, MD, MPH**, cardiologist and health policy research Fellow in Training (FIT) at Barnes-Jewish Hospital, Washington University in St. Louis (Twitter: @Gmericeh).

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Inclusive Clinical Learning Environment

URiM medical students bear disproportionate burden of mistreatment

- Obtained AAMC GQ data from 2016 and 2017 from 27,504 graduates
- Compared with white students, Asian, URM, and multiracial students reported higher rates of mistreatment (24.0%, 31.9%, 38.0%, and 32.9%) and discrimination based on race/ethnicity (3.8%, 15.7%, 23.3%, and 11.8%, respectively)
- URM female medical students reported the highest prevalence of racial/ethnic discrimination

JAMA Internal Medicine | Original Investigation | PHYSICIAN WORK ENVIRONMENT AND WELL-BEING

Assessment of the Prevalence of Medical Student Mistreatment by Sex, Race/Ethnicity, and Sexual Orientation

Katherine A. Hill, BA, BS; Elizabeth A. Samuels, MD, MPH, MHS; Cary P. Gross, MD; Mayur M. Desai, PhD, MPH; Nicole Sitkin Zelin, MD; Darin Latimore, MD; Stephen J. Huot, MD, PhD; Laura D. Cramer, PhD, ScM; Ambrose H. Wong, MD, MSEd; Dowin Boatright, MD, MBA, MHS

IMPORTANCE Previous studies have shown that medical student mistreatment is common. However, few data exist to date describing how the prevalence of medical student mistreatment varies by student sex, race/ethnicity, and sexual orientation.

OBJECTIVE To examine the association between mistreatment and medical student sex, race/ethnicity, and sexual orientation.

DESIGN, SETTING, AND PARTICIPANTS This cohort study analyzed data from the 2016 and 2017 Association of American Medical Colleges Graduation Questionnaire. The questionnaire annually surveys graduating students at all 140 accredited allopathic US medical schools. Participants were graduates from allopathic US medical schools in 2016 and 2017. Data were analyzed between April 1 and December 31, 2019.

MAIN OUTCOMES AND MEASURES Prevalence of self-reported medical student mistreatment by sex, race/ethnicity, and sexual orientation.

RESULTS A total of 27 504 unique student surveys were analyzed, representing 72.1% of graduating US medical students in 2016 and 2017. The sample included the following: 13 351 female respondents (48.5%), 16 521 white (60.1%), 5641 Asian (20.5%), 2433 underrepresented minority (URM) (8.8%), and 2376 multiracial respondents (8.6%); and 25 763 heterosexual (93.7%) and 1463 lesbian, gay, or bisexual (LGB) respondents (5.3%). At least 1 episode of mistreatment was reported by a greater proportion of female students compared with male students (40.9% vs 25.2%, $P < .001$); Asian, URM, and multiracial students compared with white students (31.9%, 38.0%, 32.9%, and 24.0%, respectively; $P < .001$); and LGB students compared with heterosexual students (43.5% vs 23.6%, $P < .001$). A higher percentage of female students compared with male students reported discrimination based on gender (28.2% vs 9.4%, $P < .001$); a greater proportion of Asian, URM, and multiracial students compared with white students reported discrimination based on race/ethnicity (15.7%, 23.3%, 11.8%, and 3.8%, respectively; $P < .001$), and LGB students reported a higher prevalence of discrimination based on sexual orientation than heterosexual students (23.1% vs 1.0%, $P < .001$). Moreover, higher proportions of female (17.8% vs 7.0%), URM, Asian, and multiracial (4.9% white, 10.7% Asian, 16.3% URM, and 11.3% multiracial), and LGB (16.4% vs 3.6%) students reported 2 or more types of mistreatment compared with their male, white, and heterosexual counterparts ($P < .001$).

CONCLUSIONS AND RELEVANCE Female, URM, Asian, multiracial, and LGB students seem to bear a disproportionate burden of the mistreatment reported in medical schools. It appears that addressing the disparate mistreatment reported will be an important step to promote diversity, equity, and inclusion in medical education.

Editor's Note page 665
Supplemental content

Hill, et al. JAMA Intern Med. Feb 2020;180(5):653-665. doi:10.1001

How common is, abuse and discrimination?

7409 residents (99.3% of the eligible residents) from all 262 surgical residency programs surveyed

31.9% reported discrimination based gender, 16.6% reported racial discrimination, 30.3% reported verbal or physical abuse (or both), and 10.3% reported sexual harassment.

65.1% of the women reported gender discrimination and 19.9% reported sexual harassment.

Patients and families were most frequent sources of gender discrimination (43.6% of residents) and racial discrimination (47.4%), whereas attending surgeons were the most frequent sources of sexual harassment (27.2%) and abuse (51.9%).

Hu and Ellis et al. NEJM (2019) DOI: 10.1056/NEJMsa1903759

The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL ARTICLE

Discrimination, Abuse, Harassment, and Burnout in Surgical Residency Training

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ABSTRACT

BACKGROUND
Physicians, particularly trainees and those in surgical subspecialties, are at risk for burnout. Mistreatment (i.e., discrimination, verbal or physical abuse, and sexual harassment) may contribute to burnout and suicidal thoughts.

METHODS
A cross-sectional national survey of general surgery residents administered with the 2018 American Board of Surgery In-Training Examination assessed mistreatment, burnout (evaluated with the use of the modified Maslach Burnout Inventory), and suicidal thoughts during the past year. We used multivariable logistic-regression models to assess the association of mistreatment with burnout and suicidal thoughts. The survey asked residents to report their gender.

RESULTS
Among 7409 residents (99.3% of the eligible residents) from all 262 surgical residency programs, 31.9% reported discrimination based on their self-identified gender, 16.6% reported racial discrimination, 30.3% reported verbal or physical abuse (or both), and 10.3% reported sexual harassment. Rates of all mistreatment measures were higher among women; 65.1% of the women reported gender discrimination and 19.9% reported sexual harassment. Patients and patients' families were the most frequent sources of gender discrimination (as reported by 43.6% of residents) and racial discrimination (47.4%), whereas attending surgeons were the most frequent sources of sexual harassment (27.2%) and abuse (51.9%). Proportion of residents reporting mistreatment varied considerably among residency programs (e.g., ranging from 0 to 66.7% for verbal abuse). Weekly burnout symptoms were reported by 38.5% of residents, and 4.5% reported having had suicidal thoughts during the past year. Residents

National Evaluation of Racial/Ethnic Discrimination in US Surgical Residency Programs

6956 residents in 301 programs sampled, 1346 (23.7%) reported discrimination (race/ethnicity/religion)

Discrimination rates were higher in blacks (171 of 242 [70.7%]), Asians (442 of 963 [45.9%]), Latinx (122 of 482 [25.3%]), and other nonwhites (175 of 526 [33.3%]) compared with whites (435 of 3455 [12.6%]).

For Blacks:

Different standards of evaluation (92 of 240 [38.3%])

Denied opportunities (39 of 242 [16.1%])

Slurs and hurtful comments (60 of 242 [24.8%])

Mistaken nonphysician 62.4%, someone else 55.8%

Hu et al. April 15, 2020. doi:10.1001/jamasurg.2020.0260

RESEARCH LETTER

National Evaluation of Racial/Ethnic Discrimination in US Surgical Residency Programs

Discrimination in medicine has been associated with decreased productivity, as well as increased alcohol use, depression, attrition, and suicidality among physicians.[1,2] In surgical training, discrimination is common[2] but has not been comprehensively evaluated among racial/ethnic minorities. The objectives of this study were to (1) determine the national prevalence and sources of discrimination based on race/ethnicity in US general surgery programs, (2) identify factors associated with discrimination, and (3) assess its association with resident wellness.

Methods | Resident physicians training in Accreditation Council for Graduate Medical Education–accredited general surgery programs were administered a survey following the 2019 American Board of Surgery In-Training Examination. Residents were asked about their experiences with various types of discriminatory behavior based on race/ethnicity or religion[3,4] within that academic year. Burnout, thoughts of attrition, and suicidality were assessed with established instruments.[2] The proportion of minority faculty members within each program was obtained from the Association of American Medical Colleges. This study was reviewed by the Northwestern University institutional review board office and was determined to not meet the definition of human-subjects research. As a result, this study was deemed exempt from full review and informed consent procedures.

Descriptive statistics were calculated. A multivariable regression model was developed to examine resident and program characteristics associated with discrimination. Adjusted analyses were repeated with stratification by sex to evaluate for potential interactions between race and sex. We performed χ^2 tests to assess the associations of discrimination with burnout, thoughts of attrition, and suicidality. All tests were 2-sided with $\alpha = .05$, using Stata version 15.1 (StataCorp). Data were collected in January 2019. The dates that data were analyzed include June 2019 to August 2019.

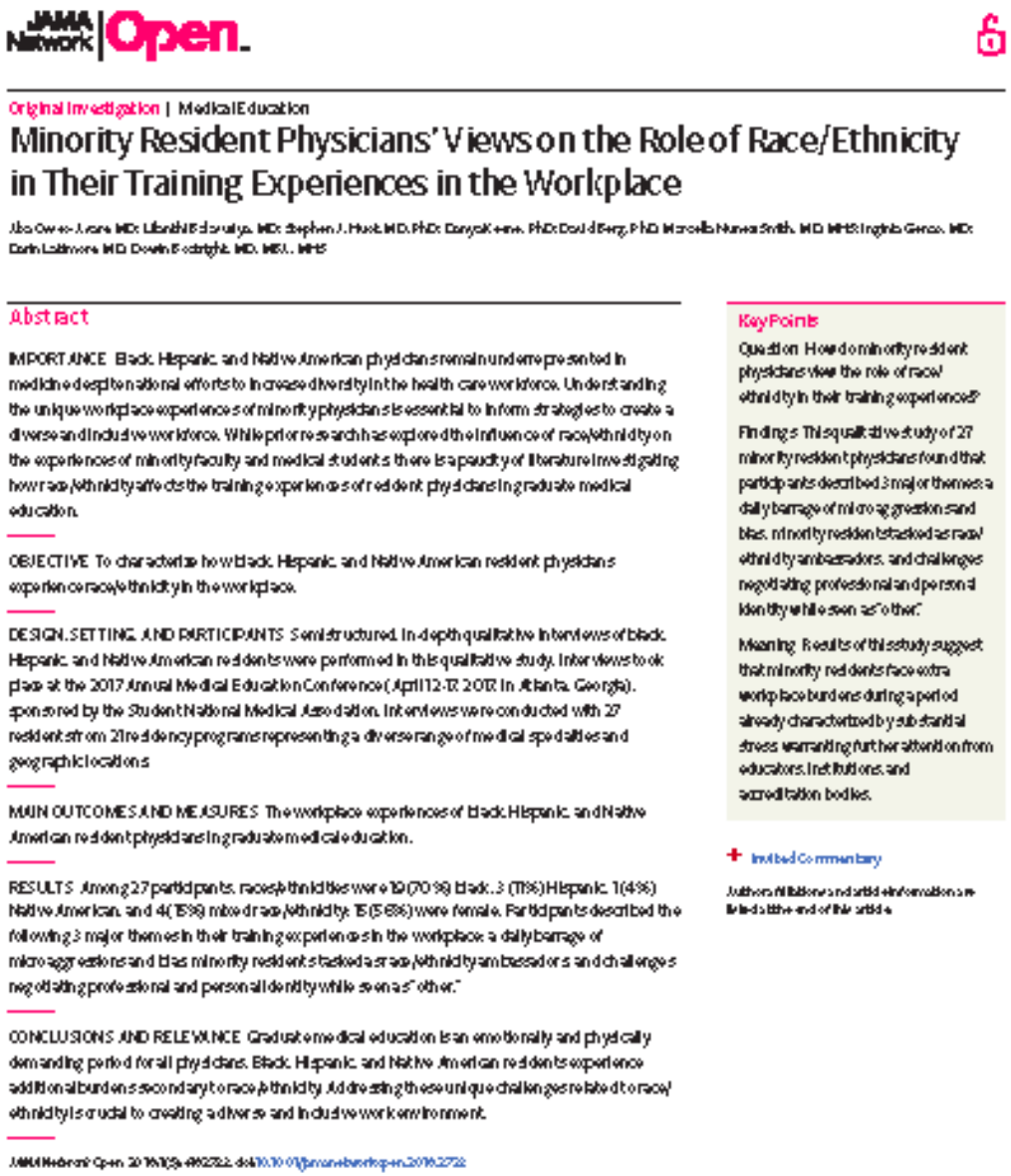
Results | A total of 6956 clinically active residents from 301 programs completed the survey (response rate, 85.6%). Of the 5679 who responded to the relevant questions, 1346 (23.7%) reported experiencing discrimination based on race/ethnicity or religion. Discrimination rates were higher in black respondents (171 of 242 [70.7%]), Asian respondents (442 of 963 [45.9%]), Hispanic respondents (122 of 482 [25.3%]), and other nonwhite respondents (175 of 526 [33.3%]) compared with white respondents (435 of 3455 [12.6%]). The most common discriminatory behavior was being mistaken for another person of the same race, experienced by 135 of 240 black residents (56.3%; 2 individuals did not respond to this question) and 361 of 963 Asian residents (37.6%; 4 individuals did not respond), with nurses and staff as the most common source (413 [43.8%]). Black residents frequently reported being mis-

Table 1. Prevalence and Most Common Sources of Discrimination Based on Race/Ethnicity or Religion[a]

Characteristic	Respondents, No. (%)							Most common source of discrimination[d]	
	All (N = 5679)[b]	White (n = 3455)	Black (n = 242)	Hispanic (n = 482)	Asian (n = 963)	Other/prefer not to say (n = 526)	P value[c]	Source	Respondents reporting this type of discrimination, No. (%)
Overall prevalence	1346 (23.7)	435 (12.6)	171 (70.7)	122 (25.3)	442 (45.9)	175 (33.3)	<.001	NA	NA
Discrimination components									
Different standards of evaluation	468 (8.2)	100 (2.9)	92 (38.0)	52 (10.8)	137 (14.2)	86 (16.3)	<.001	Attending physicians	243 (63.0)
Denied opportunities	250 (4.4)	69 (2.0)	39 (16.1)	27 (5.6)	59 (6.1)	55 (10.5)	<.001	Attending physicians	138 (67.3)
Mistaken for a nonphysician	482 (8.5)	51 (1.5)	151 (62.4)	66 (13.7)	150 (15.6)	63 (12.0)	<.001	Patients and their families	327 (73.2)
Slurs and/or hurtful comments	416 (7.3)	116 (3.4)	60 (24.8)	40 (8.3)	129 (13.4)	70 (13.3)	<.001	Patients and their families	126 (35.5)
Socially isolated	208 (3.7)	65 (1.9)	28 (11.6)	26 (5.4)	37 (3.8)	51 (9.7)	<.001	Colleagues	117 (70.1)
Mistaken for another person of the same race	998 (17.6)	300 (8.7)	135 (55.8)	74 (15.4)	361 (37.5)	127 (24.2)	<.001	Nurses/staff	413 (43.8)

Update on Minority Residents' Experiences

- A daily barrage of microaggressions and bias
- Minority residents tasked as race/ethnicity ambassadors
- Challenges negotiating professional and personal identity while seen as "other"



JAMA Network Open

Original Investigation | Medical Education

Minority Resident Physicians' Views on the Role of Race/Ethnicity in Their Training Experiences in the Workplace

Abstract

IMPORTANCE Black, Hispanic, and Native American physicians remain underrepresented in medicine despite national efforts to increase diversity in the health care workforce. Understanding the unique workplace experiences of minority physicians is essential to inform strategies to create a diverse and inclusive workforce. While prior research has explored the influence of race/ethnicity on the experiences of minority faculty and medical students, there is a paucity of literature investigating how race/ethnicity affects the training experiences of resident physicians in graduate medical education.

OBJECTIVE To characterize how Black, Hispanic, and Native American resident physicians experience race/ethnicity in the workplace.

DESIGN, SETTING, AND PARTICIPANTS Semistructured, in-depth qualitative interviews of Black, Hispanic, and Native American residents were performed in this qualitative study. Interviews took place at the 2017 Annual Medical Education Conference (April 12-17, 2017) in Atlanta, Georgia), sponsored by the Student National Medical Association. Interviews were conducted with 27 residents from 21 residency programs representing a diverse range of medical specialties and geographic locations.

MAIN OUTCOMES AND MEASURES The workplace experiences of Black, Hispanic, and Native American resident physicians in graduate medical education.

RESULTS Among 27 participants, races/ethnicities were 19 (70.4%) Black, 3 (11.1%) Hispanic, 1 (4.0%) Native American, and 4 (15.9%) mixed race/ethnicity; 15 (55.6%) were female. Participants described the following 3 major themes in their training experiences in the workplace: a daily barrage of microaggressions and bias, minority residents tasked as race/ethnicity ambassadors, and challenges negotiating professional and personal identity while seen as "other."

CONCLUSIONS AND RELEVANCE Graduate medical education is an emotionally and physically demanding period for all physicians. Black, Hispanic, and Native American residents experience additional burdens secondary to race/ethnicity. Addressing these unique challenges related to race/ethnicity is crucial to creating a diverse and inclusive work environment.

Key Points

Question How do minority resident physicians view the role of race/ethnicity in their training experiences?

Findings This qualitative study of 27 minority resident physicians found that participants described 3 major themes: a daily barrage of microaggressions and bias, minority residents tasked as race/ethnicity ambassadors, and challenges negotiating professional and personal identity while seen as "other."

Meaning Results of this study suggest that minority residents face extra workplace burdens during a period already characterized by substantial stress, warranting further attention from educators, institutions, and accreditation bodies.

+ Invited Commentary

Author Affiliations and article information are listed at the end of this article.

Osseo-Asare A et al. JAMA Network Open. 2018;1(5):e182723

Microaggressions

"Nice to see you are finally trying"

"Are you the first person in your family to be a doctor?"

"You speak English really well"

"Is that your real hair, can I touch it?"

"Your name is too difficult for me, do you have a nickname?"

"You have such a chip on your shoulder"

Not just spoken insults

Entire world, in all aspects of your life

Rarely said with misguided love

Small daily insults and indignities perpetrated against marginalized people because of their being in that group

More than just annoyances

Oluo, Ijeoma. *So you want to talk about race*. Hachette UK, 2019

Microaggressions

Cumulative reminder that you are less than

On their own, each microaggression does not seem like a big deal, but as a cumulative process, it has a definite impact on the quality of your life and relationships with others

Come from multiple people, and since each microaggression seems small:

- Exhausting to confront each source
- Appear hypersensitive

Often done without awareness of causing harm

Oluo, Ijeoma. *So you want to talk about race*. Hachette UK, 2019

Microaggressions

Cause isolation, invalidation, unworthiness of respect

Inability to predict where and when they will occur leads to hypervigilance and keep you off balance, distracted and defensive

Find a way into every part of every day, constant reminders that you don't belong

They steal your joy and can ruin your day

Hard to address in real life because the are hard to see

Small and can be easily explained away as a misunderstanding or mistake

Those subjected to microaggressions are more likely to exhibit depression

Oluo, Ijeoma. *So you want to talk about race*. Hachette UK, 2019

Race and the Learning Environment

Students from racial and ethnic minorities experience more microaggressions that they attribute to their race

Studies suggest that the higher prevalence of depression symptoms among this subgroup of students is likely driven by factors within the learning environment rather than individual traits

Medical schools need to do more to improve the learning environment for nonwhite students.

Research Report

A Prognostic Index to Identify the Risk of Developing Depression Symptoms Among U.S. Medical Students Derived From a National, Four-Year Longitudinal Study

Liselotte N. Dyrbye, MD, MHPE, Natalie M. Wittlin, MS, Rachel R. Hardeman, PhD, MPH, Mark Yeazel, MD, MPH, Jeph Herrin, PhD, John F. Dovidio, PhD, Sara E. Burke, PhD, Brooke Cunningham, MD, PhD, Sean M. Phelan, PhD, MPH, D. Shanafelt, MD, and Michelle van Ryn, PhD, MPH

Abstract

Purpose
To determine baseline individual and school-related factors associated with increased risk of developing depression symptoms by year four (Y4) of medical school, and to develop a prognostic index that stratifies risk of developing depression symptoms (Depression-PI) among medical students.

Method
The authors analyzed data from 3,743 students (79% of 4,732) attending 49 U.S. medical schools who completed baseline (2010) and Y4 (2014) surveys. Surveys included validated scales measuring depression, stress, coping, and social support. The authors collected demographics and school characteristics and conducted multivariate analysis to identify baseline factors independently associated with Y4 depression symptoms. They used these factors to create a prognostic index for developing depression. They randomly divided the data into discovery (n = 2,455) and replication (n = 1,288) datasets and calculated *c* statistics (*c*).

Results
The authors identified eight independent prognostic factors for experiencing depression symptoms during training within the discovery dataset: age; race; ethnicity; tuition; and baseline depression symptoms, stress, coping behaviors, and social support. The Depression-PI stratified four risk groups. Compared with the low risk group, those in the intermediate, high, and very high risk groups had an odds ratio of developing depression of, respectively, 1.75, 3.98, and 9.19 (*c* = 0.71). The replication dataset confirmed the risk groups.

Conclusions
Demographics; tuition; and baseline depression symptoms, stress, coping behaviors, and social support are independently associated with risk of developing depression during training among U.S. medical students. By stratifying students into four risk groups, the Depression-PI may allow for a tiered primary prevention approach.

Dyrbye, LN et al. Acad Med. 2019 Feb;94(2):217-226

Burnout impairs job performance

- Ability to focus wanes
- Engagement with work suffers
- Feelings of apathy and hopelessness
- Increased irritability, emotional exhaustion
- Lack of productivity and poor performance

Relationship Between Burnout and Professional Conduct and Attitudes Among US Medical Students

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Daniel Satele, BA
Jeff Sloan, PhD
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Context The relationship between professionalism and distress among medical students is unknown.

Objective To determine the relationship between measures of professionalism and burnout among US medical students.

Design, Setting, and Participants Cross-sectional survey of all medical students attending 7 US medical schools (overall response rate, 2682/4400 [61%]) in the spring of 2009. The survey included the Maslach Burnout Inventory (MBI), the PRIME-MD depression screening instrument, and the SF-8 quality of life (QOL) assessment tool, as well as items exploring students' personal engagement in unprofessional conduct, understanding of appropriate relationships with industry, and attitudes regarding physicians' responsibility to society.

Main Outcome Measures Frequency of self-reported cheating/dishonest behaviors, understanding of appropriate relationships with industry as defined by American Medical Association policy, attitudes about physicians' responsibility to society, and the relationship of these dimensions of professionalism to burnout, symptoms of depression, and QOL.

Results Of the students who responded to all the MBI items, 1354 of 2566 (52.8%) had burnout. Cheating/dishonest academic behaviors were rare (endorsed by <10%) in comparison to unprofessional conduct related to patient care (endorsed by up to 48%). Only 14% (362/2531) of students had opinions on relationships with industry consistent with guidelines for 6 scenarios. Students with burnout were more likely to report engaging in 1 or more unprofessional behaviors than those without burnout (35.0% vs 21.9%; odds ratio [OR], 1.89; 95% confidence interval [CI], 1.59-2.24). Students with burnout were also less likely to report holding altruistic views regarding physicians' responsibility to society. For example, students with burnout were less likely to want to provide care for the medically underserved than those without burnout (79.3% vs 85.0%; OR, 0.68; 95% CI, 0.55-0.83). After multivariable analysis adjusting for personal and professional characteristics, burnout was the only aspect of distress independently associated with reporting 1 or more unprofessional behaviors (OR, 1.76; 95% CI, 1.45-2.13) or holding at least 1 less altruistic view regarding physicians' responsibility to society (OR, 1.65; 95% CI, 1.35-2.01).

Conclusion Burnout was associated with self-reported unprofessional conduct and less altruistic professional values among medical students at 7 US schools.

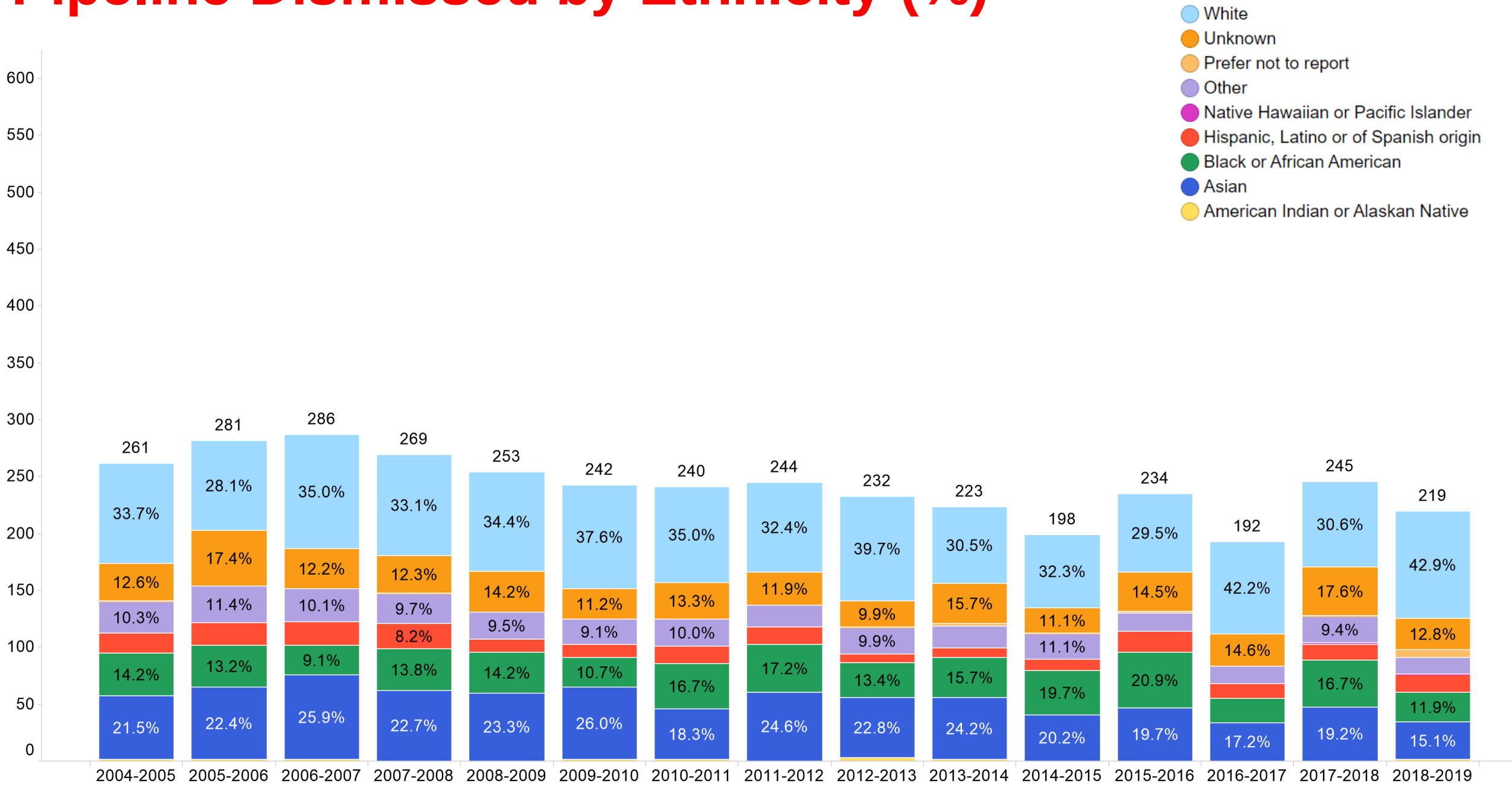
JAMA. 2010;304(11):1173-1180 www.jama.com

See also pp 1181 and 1231.

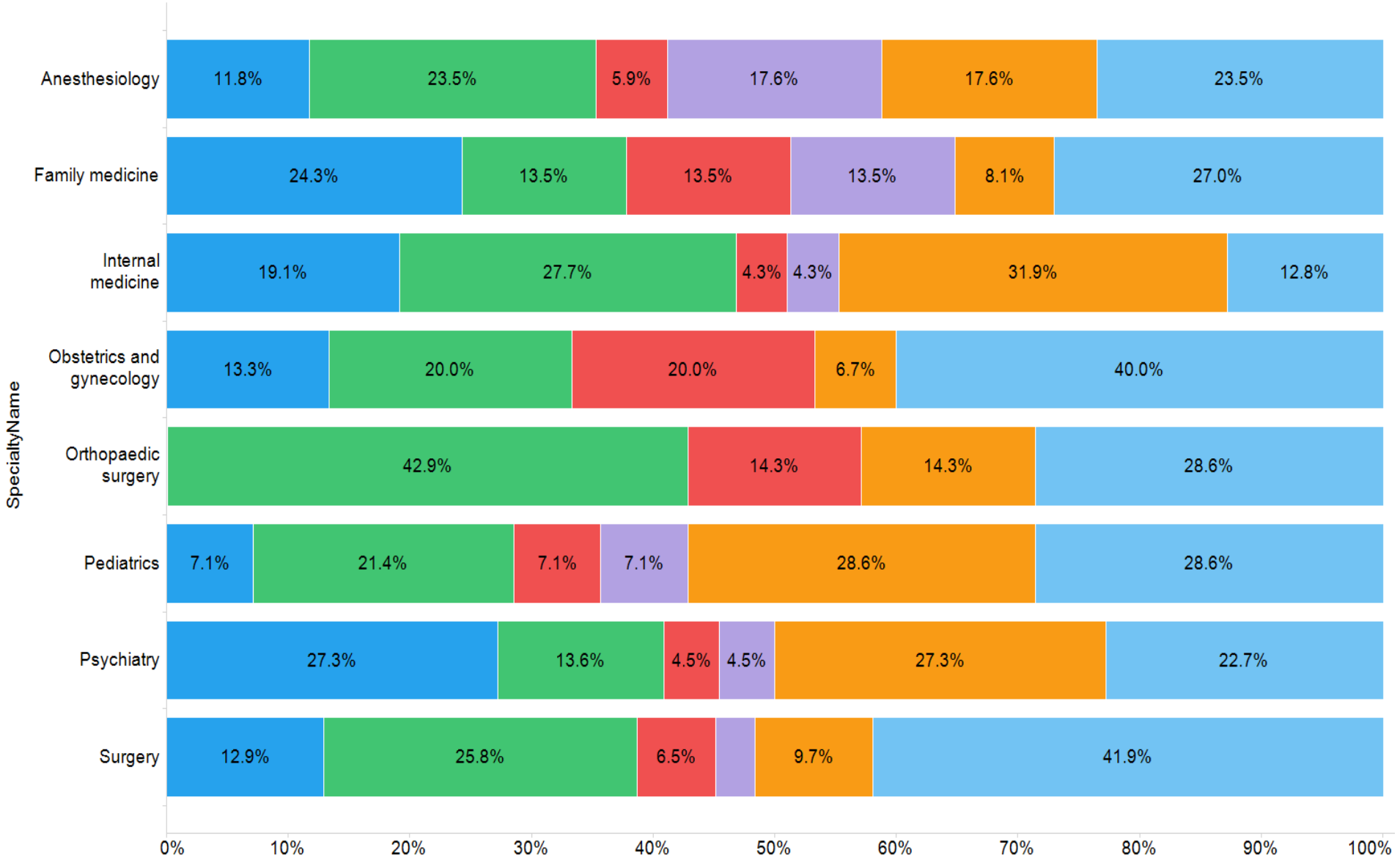
Dyrbye, LN et al. JAMA (2010) 304(11):1173

ACGME

Pipeline Dismissed by Ethnicity (%)



2015-2016 Pipeline Dismissed by Specialty

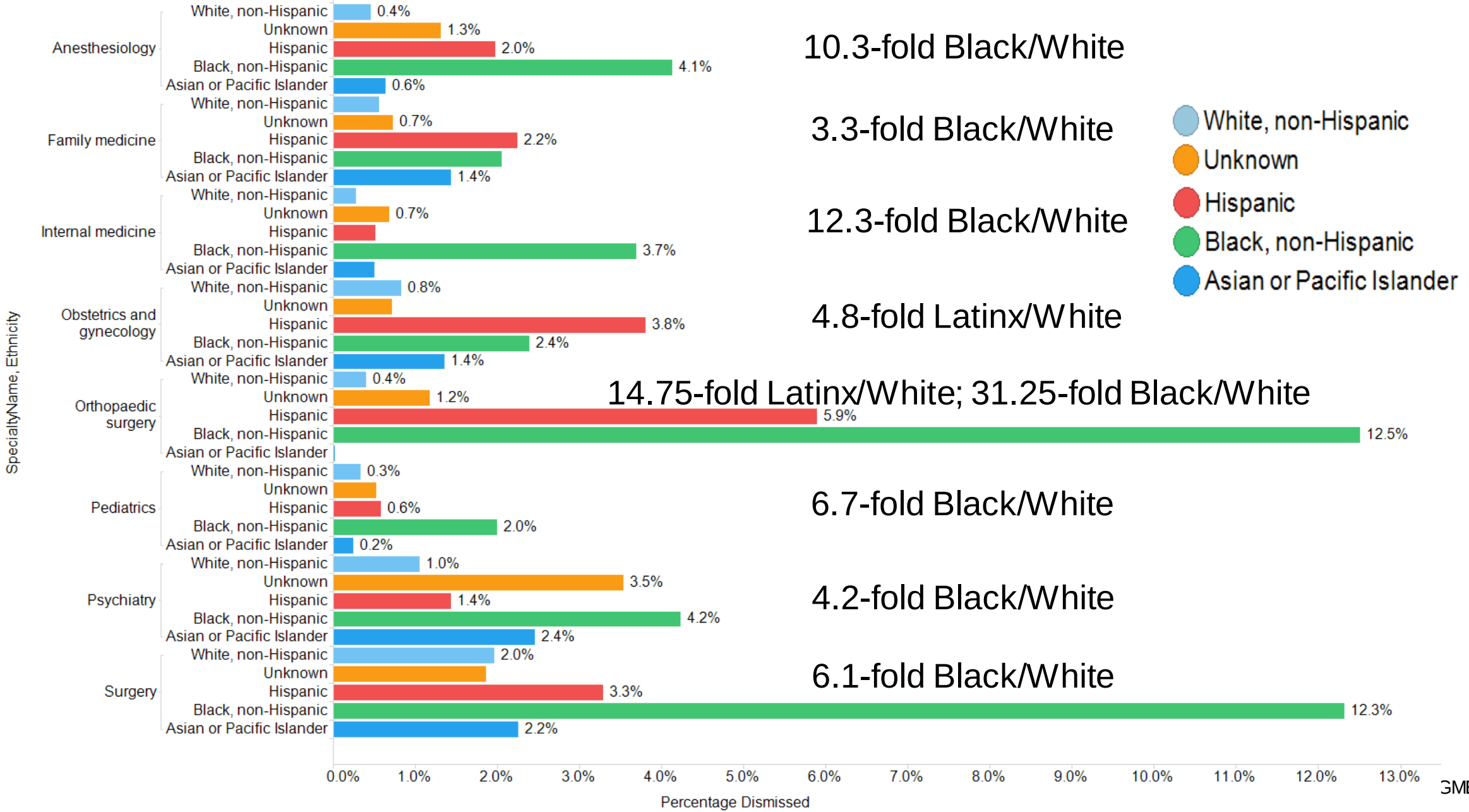


3.1% of all ortho residents are Black

5.9% of all pediatrics residents are Black

5.1% of all surgery residents are Black

2015-2016 Pipeline Grads Dismissed by Specialty



GME

The Washington Post

Democracy Dies in Darkness

I'm a female doctor. I often face sexual harassment at the hospital. And I'm not the only one.

By **Jennifer Tsai**

Oct. 5, 2019 at 8:00 a.m. CDT

We had spent only a few minutes together, but in that short time my patient had already assembled several lewd comments about how my body looked in loose blue scrubs, speculated about my sexual proclivities and compared me to women he had previously "enjoyed." He asked if I had a boyfriend, if I liked to have fun. The last thing I wanted to do was check for sensation around his testicles.

It was a necessary piece of information. The patient had arrived in the Emergency Department complaining of back pain. I knew — even as a fourth-year medical student — that I had to check for sensation in his pelvic area. Numbness would suggest something dangerous was at play. The last patient I had seen with this set of symptoms might have never walked again had we not discovered a vertebral disc smashing into his spinal cord like a determined, bony wedge.

My own reproach rang in my ears. I reminded myself that medical students often miss key pieces of information in their hesitation to perform more invasive or embarrassing maneuvers — penile exams, skin checks, femoral pulses and now the perineum: the swatch of real estate that runs between the anus and scrotum. I thought about how underserved populations receive worse care, how this man was in a tragically difficult life situation, how his substance abuse was probably altering his behavior with me. I tasted my reluctance and it made me feel like a

Monday December 16, 2019 | Today's Paper

The Philadelphia Inquirer

NEWS SPORTS BUSINESS OPINION POLITICS ENTERTAINMENT LIFE FOOD HEALTH REAL ESTATE OBITUARIES JOBS

Female surgical residents face discrimination that can mean burnout, suicidal thoughts, study finds

by Bethany Ao, Updated: December 16, 2019

MONICA HERNDON / STAFF PHOTOGRAPHER

When Ilene Wong was a urology resident at Stanford Hospitals and Clinics, she found herself sidelined in favor of her fellow resident — a white man — on at least one occasion when it came to major surgeries, like kidney or bladder removals.

"I remember a specific incident when my attending asked for someone with 'more muscle,' " said Wong, a urologist in private practice in Chester County. "It was very discouraging."

RELATED STORIES

Table 2. Frequency of Mistreatment, Duty-Hour Violations, Burnout, and Suicidal Thoughts among U.S. Surgical Residents.*

Variable	Overall (N = 7409)	Men (N = 4438)	Women (N = 2935)
		number (percent)	
Any mistreatment exposure†	3694 (49.9)	1605 (36.1)	2073 (70.6)
A few times per year	2289 (30.9)	1120 (25.2)	1162 (39.6)
A few times per month or more frequently	1405 (19.0)	485 (10.9)	911 (31.0)
Duty-hour violations of the 80-hr rule in the previous 6 mo — no. of mo			
0	4518 (61.0)	2952 (66.5)	1548 (52.7)
1–2	1869 (25.2)	954 (21.5)	906 (30.9)
≥3	1022 (13.8)	532 (12.0)	481 (16.4)
Outcome measures			
Burnout‡	2849 (38.5)	1591 (35.9)	1245 (42.4)
Suicidal thoughts	333 (4.5)§	173 (3.9)	156 (5.3)

Hu and Ellis et al. NEJM (2019) DOI: 10.1056/NEJMsa1903759

New Program Requirement VI.B.6.

VI.B.6. Programs, in partnership with their Sponsoring Institutions, must provide a professional, equitable, respectful, and civil environment that is free from discrimination, sexual and other forms of harassment, mistreatment, abuse, or coercion of students, residents, faculty, and staff. (Core)

The Cost of Incivility