Bridging the Gap to Equity: Why it should matter to us all

Association of Women in Rheumatology
Friday, August 19, 2022

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Disclosures

Reviewer for the Journal of Racial and Ethnic Disparities

No other relevant conflicts.

Objectives

- Define what are health disparities
- Discuss health disparities in patients with rheumatic diseases, with an emphasis on racial disparities
- Outline possible ways to bridge the health equities gap

Is this your patient?

- 70-year-old lady with T2DM, RA, and osteoporosis. Her diabetes has not been controlled because she is on prednisone for her RA, which is the only drug she can afford.
- She is on insulin, but the insurance carrier will not approve a continuous glucose monitor and she doesn't check her blood sugars as she should. As a result, her HgA1C is abnormal at 8.2.
- Her primary language is Turkish, and she has missed several appointments because she has to travel 1½ hours to the clinic. There is not always an interpreter or a family member available. She has a flip phone but no internet access at home.

Is this your patient?

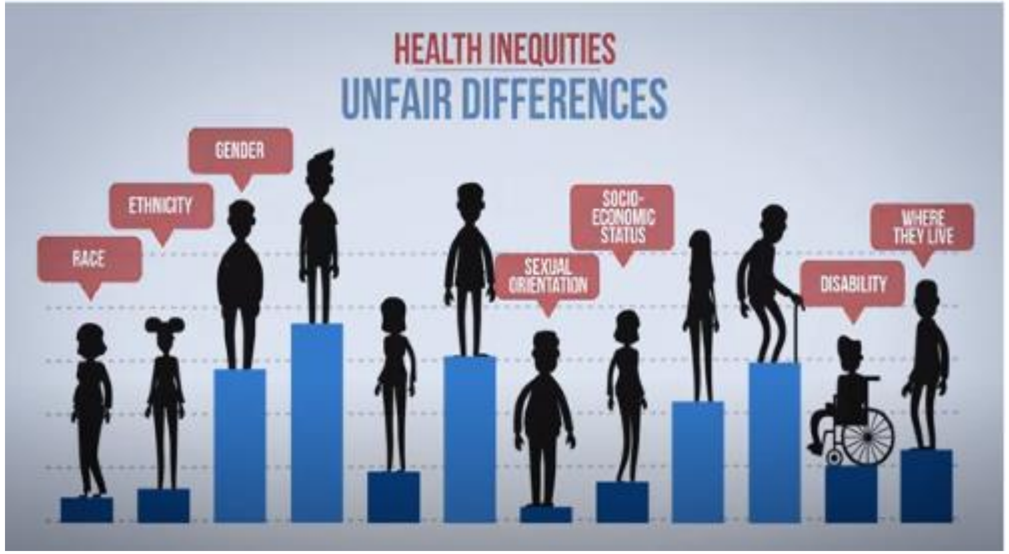
- Attempts by her rheumatologist has not been successful in getting her into a patient assistance program for a ts/bDMARD and she is not a candidate for a clinical trial.

POLLING QUESTION #1 - Which of the following is/are considered to be included in the definition for health disparity?

A. Religion
B. Gender
C. Geographic location
D. Socioeconomic status
E. All of the above

Health Disparity

- A particular type of health difference that is closely linked with social or economic disadvantage.
- Adversely affect groups of people who have systematically experienced greater social or economic obstacles to health based on their
    - Racial or ethnic group
    - Religion
    - Socioeconomic status
    - Gender
    - Mental health/cognitive/sensory/physical disability
    - Sexual orientation
    - Geographic location
    - Other characteristics historically linked to discrimination or exclusion



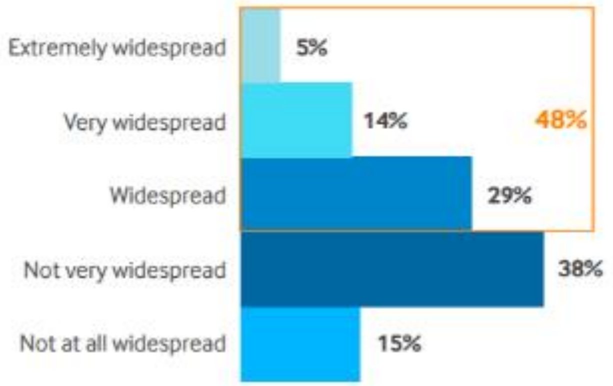
https://www.va.gov/healthequity/

Survey said....

- **NEJM Catalyst surveyed health care executives, clinical leaders, and clinicians about health equity**
- **A total of 553 completed surveys are included in the analysis**

Nearly Half of Respondents Say Disparities in Care Delivery Are Widespread

How widespread are disparities in care delivery at your organization?



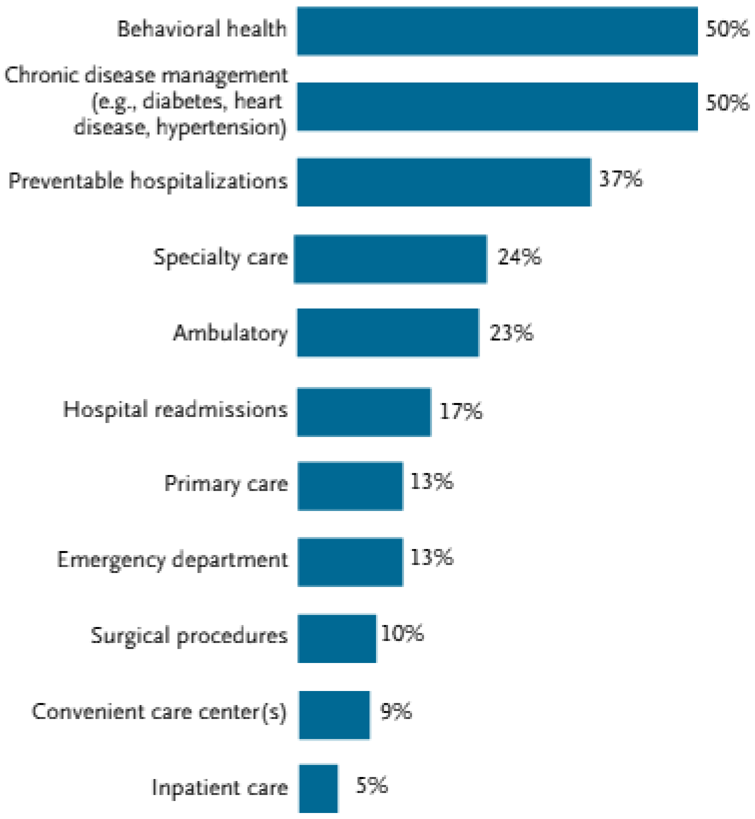
A higher incidence of Executives **54%** than Clinicians **43%** indicate that disparities in care delivery are widespread.

Base: 553

NEJM Catalyst (catalyst.nejm.org) © Massachusetts Medical Society

Disparities Occur in Many Specialties and Aspects of Care Delivery

What are the top three areas in your organization where disparities in care delivery are most prevalent?



Base: 553 (multiple responses)

Catalyst.nejm.org

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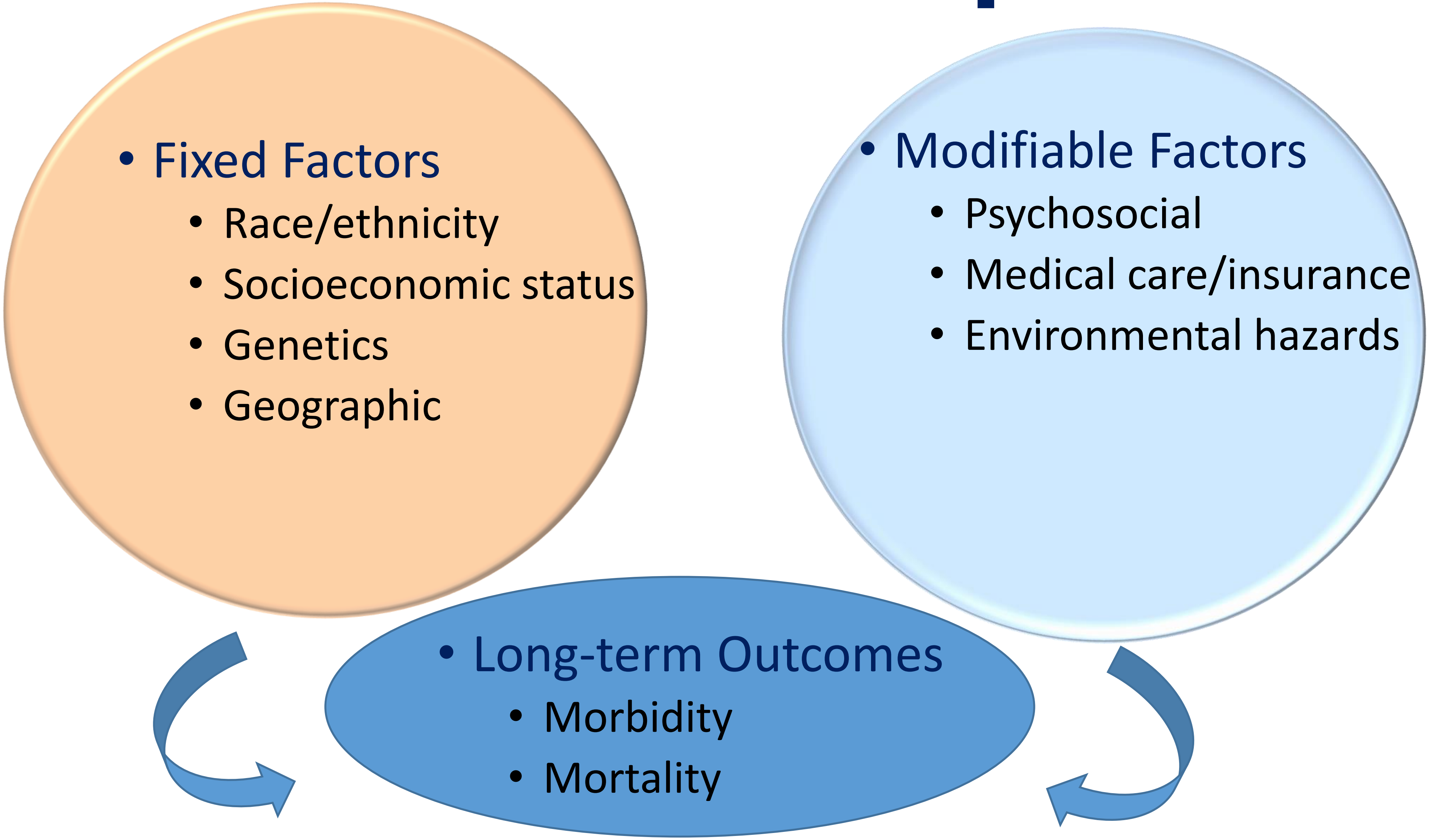
Drivers of disparities



- Fixed Factors
  - Race/ethnicity
  - Socioeconomic status
  - Genetics
  - Geographic

- Modifiable Factors
  - Psychosocial
  - Medical care/insurance
  - Environmental hazards

- Long-term Outcomes
  - Morbidity
  - Mortality

House, JS. J Health Soc Behave 2002;43:125-42

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Disparities in RA

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Racial and Ethnic Disparities in RA Disease Activity

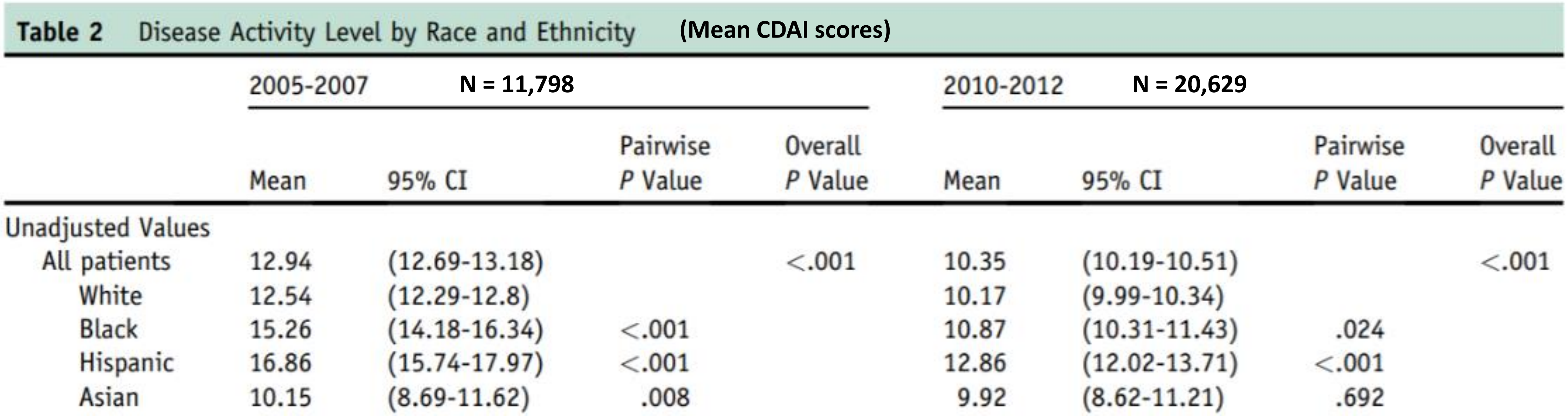


Table 2 Disease Activity Level by Race and Ethnicity **(Mean CDAI scores)**

	2005-2007 **N = 11,798**				2010-2012 **N = 20,629**			
	Mean	95% CI	Pairwise *P* Value	Overall *P* Value	Mean	95% CI	Pairwise *P* Value	Overall *P* Value
Unadjusted Values								
All patients	12.94	(12.69-13.18)		<.001	10.35	(10.19-10.51)		<.001
White	12.54	(12.29-12.8)			10.17	(9.99-10.34)		
Black	15.26	(14.18-16.34)	<.001		10.87	(10.31-11.43)	.024	
Hispanic	16.86	(15.74-17.97)	<.001		12.86	(12.02-13.71)	<.001	
Asian	10.15	(8.69-11.62)	.008		9.92	(8.62-11.21)	.692	

Conclusion: Despite improvements in disease activity across racial and ethnic groups over a 5-year period, disparities persist in disease activity and clinical outcomes for minority groups versus white patients

The American Journal of Medicine (2013) 126, 1089-1098

DMARD Use in Racial and Ethnic RA Patients

- Retrospective cohort study and medical records review of new RA pts at 2 Texas clinics:
  - Public clinic (n = 118; 83% non-White)
  - Private clinic (n = 167; 18% non-White)
- Non-White pts were less than half as likely to receive a DMARD or steroid
- Median time to initiate a DMARD
  - Public clinic – 7 years
  - Private clinic – 1 year

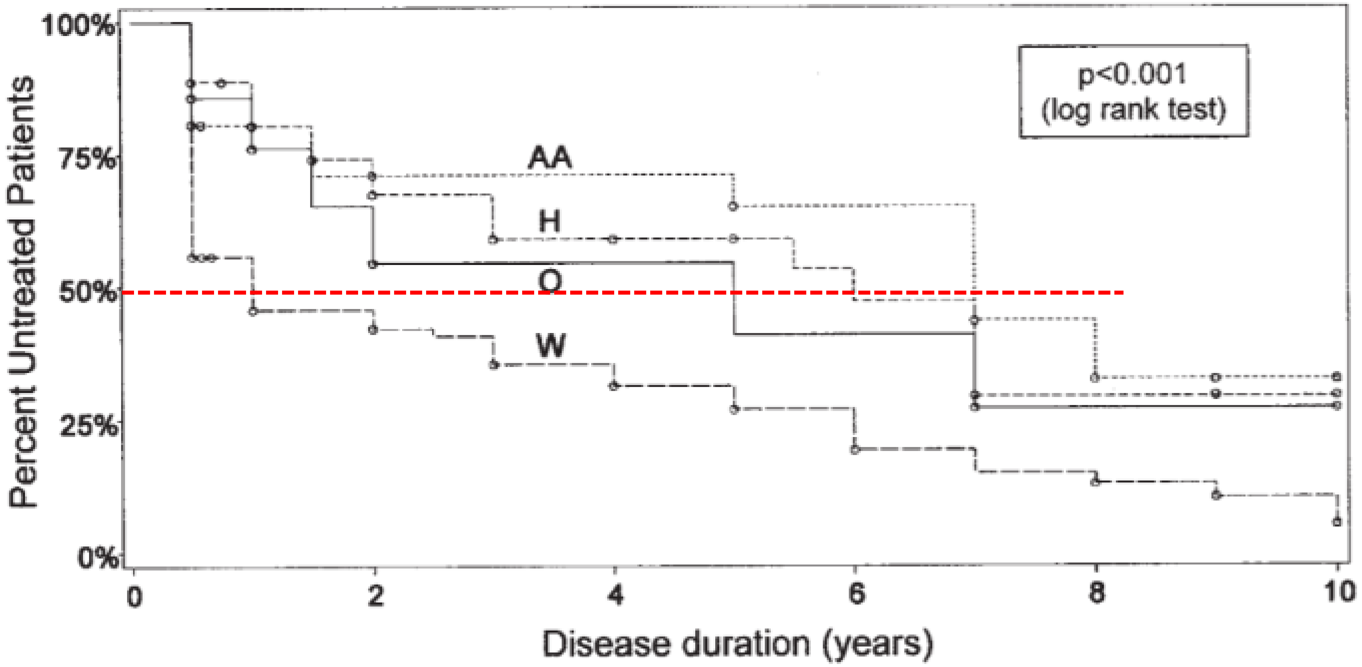


Figure 2. Kaplan-Meier survival curve: time to initiation of DMARD therapy by ethnicity. AA: African-American, H: Hispanic, O: Other, W: White.

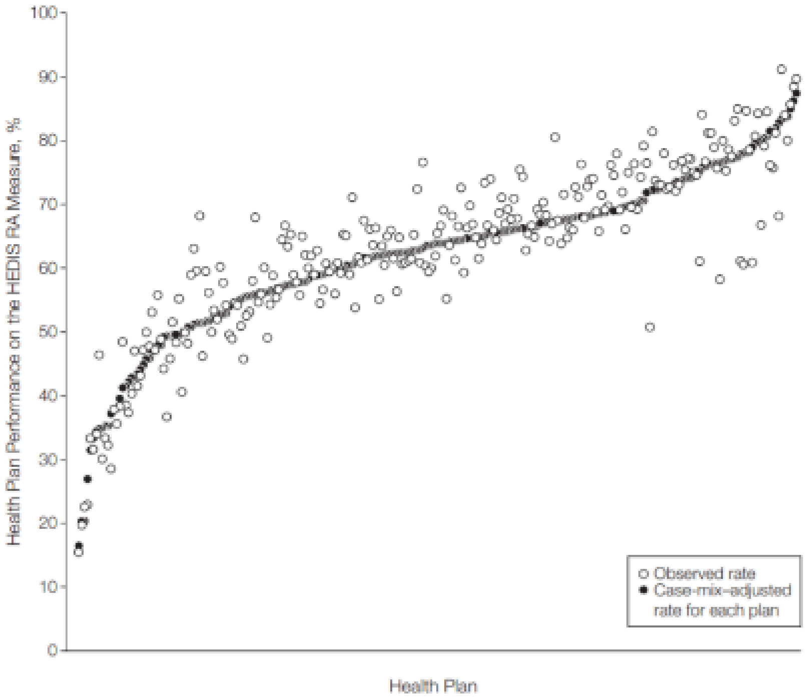
Conclusion: These findings suggest that ethnic minorities and uninsured patients are at risk of deleterious outcomes as a consequence of delayed therapeutic onset

J Rheumatology 2007;34:2400-7

DMARD Use Among RA Patients in Medicare Managed Care Plans

- In 2005, the National Committee of Quality Assurance revised Healthcare Effectiveness Data and Information Set (HEDIS) and introduced a quality measure to assess the receipt of DMARDs
- HEDIS data from 2005-2008 for 93,143 RA pts ≥ 65 years old
- Pts ≥ 85 had a 30%-point lower rate of DMARD receipt (95% confidence interval [CI], −29 to −32 points; P.001), compared with pts 65-69
- Lower percentage point rates were also found for
  - Men (−3 points; 95% CI, −5 to −2 points; P.001)
  - Blacks (−4 points; 95% CI, −6 to −2 points; P.001)
  - Low personal income (−6 points; 95% CI, −8 to −5 points; P.001
  - Lowest zip code–based socioeconomic status (−4 points; 95% CI, −6 to 2 points; P.001)

Figure. Observed and Case Mix–Adjusted Rate of Performance by Health Plans on the Healthcare Effectiveness Data and Information Set (HEDIS) Rheumatoid Arthritis Measure (n=245)



Plans with fewer than 20 observations were excluded.

Conclusion: Among Medicare managed care enrollees carrying a diagnosis of RA between 2005 and 2008, 63% received a DMARD. Receipt of DMARDs varied based on demographic factors, socioeconomic status, geographic location, and health plan.

JAMA 2011;305:480-6

Disparities in SLE

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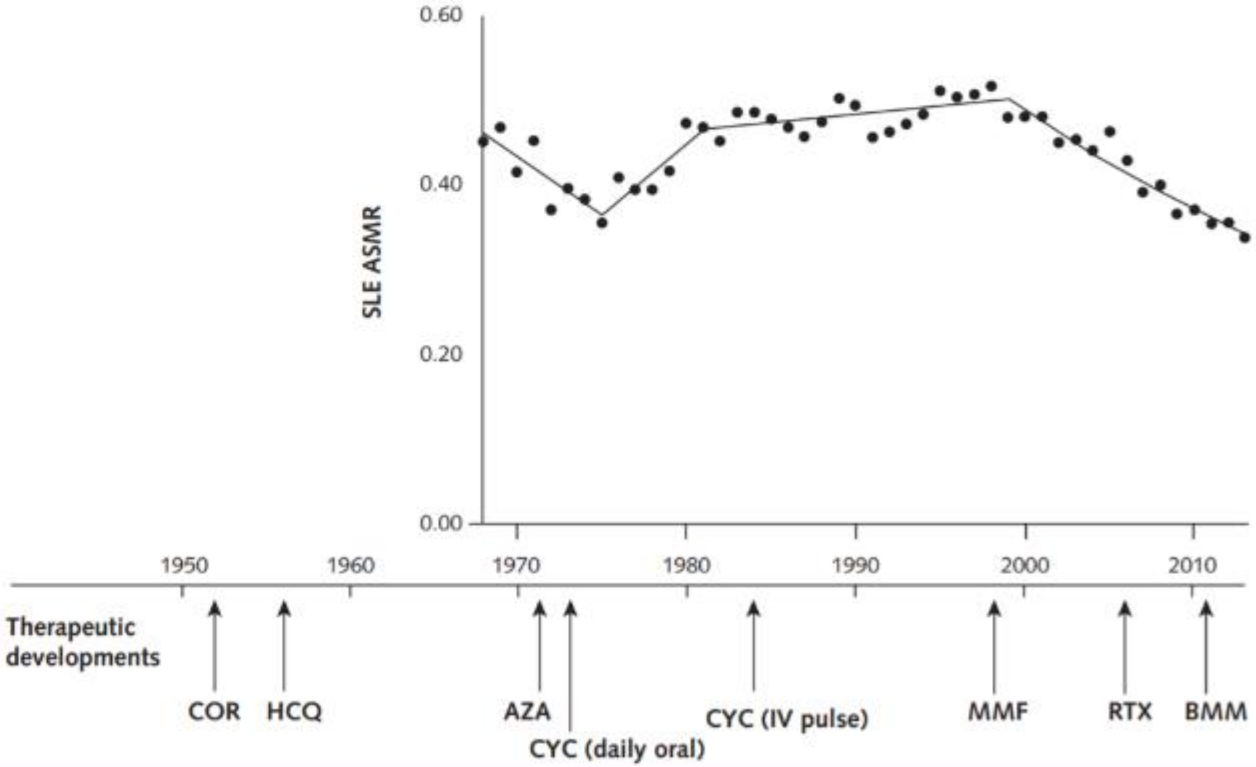
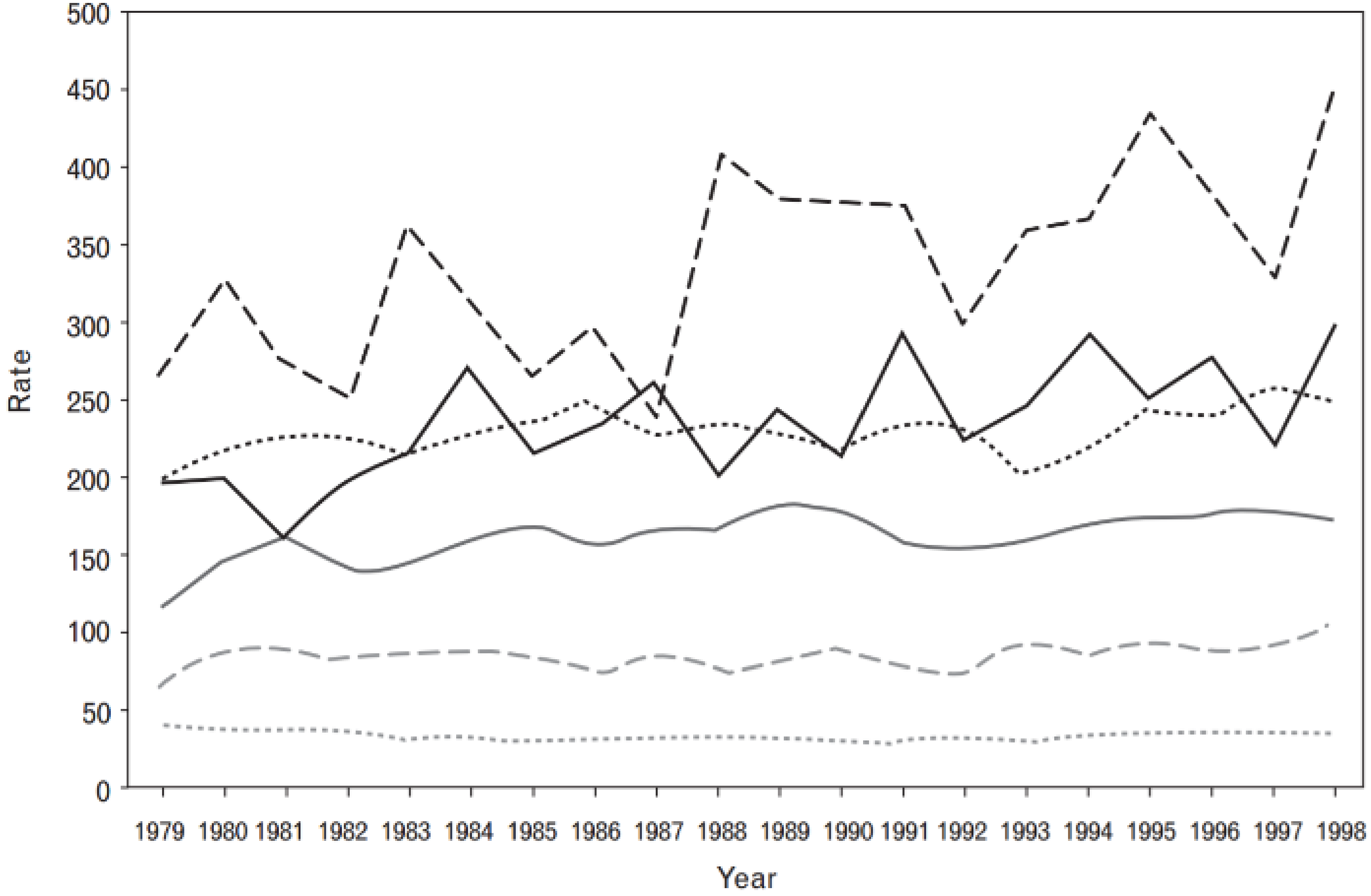
Major SLE treatment milestones in relation to SLE mortality rates



The ASMR per 100 000 persons for SLE (Figure, *top*) is shown in relation to major SLE treatment milestones. Corticosteroids and hydroxychloroquine were introduced to treat patients with SLE in the 1950s (36, 37). Immunosuppressive drugs, including azathioprine (38) and daily oral cyclophosphamide (18), were introduced in the 1970s. The superiority of immunosuppressive drugs plus corticosteroids over corticosteroids alone was reported in the 1980s (39). Monthly IV cyclophosphamide was introduced in the 1980s (19, 20). Drugs that have more recently been used to treat SLE include mycophenolate, since the late 1990s (21); rituximab, since the mid-2000s; and belimumab, which was approved by the U.S. Food and Drug Administration to treat SLE in 2011 (22). ASMR = age-standardized mortality rate; AZA = azathioprine; BMM = belimumab; COR = corticosteroids; CYC = cyclophosphamide; HCQ = hydroxychloroquine; IV = intravenous; MMF = mycophenolate; RTX = rituximab; SLE = systemic lupus erythematosus.

Annals of Internal Medicine • Vol. 167 No. 11 • 5 December 2017

Systemic lupus erythematosus death rates* among women by age group and race – United States, 1979–1998



*Per 10 million population. ———, black aged ≥ 65 years; – – –, black aged 45–64 years; ------, black aged 15–44 years; ———, white aged ≥ 65 years; – – –, white aged 45–64 years; ------, white aged 15–44 years.

Curr Opin Rheumatol 2009;21:102-109

Racial Disparities in US Pts with SLE

- Analysis of 2016 – 2018 Medical Expenditure Panel Surveys (MEPS): an annual survey designed to represent the US civilian non-institutionalized population.
- Prevalence of SLE was higher in Black adults 287 (95% CI: 162, 412) per 100,000 vs. White adults 187 (95% CI: 133, 241) per 100,000.

	White	Black
Mean age (yrs)	50.1	46.8
Comorbid condition		
Arthritis	54%	86%
Type 2 diabetes	6%	30%
Heart disease	19%	27%
Stroke	5%	17%
Myocardial infarction	1%	10%
>		

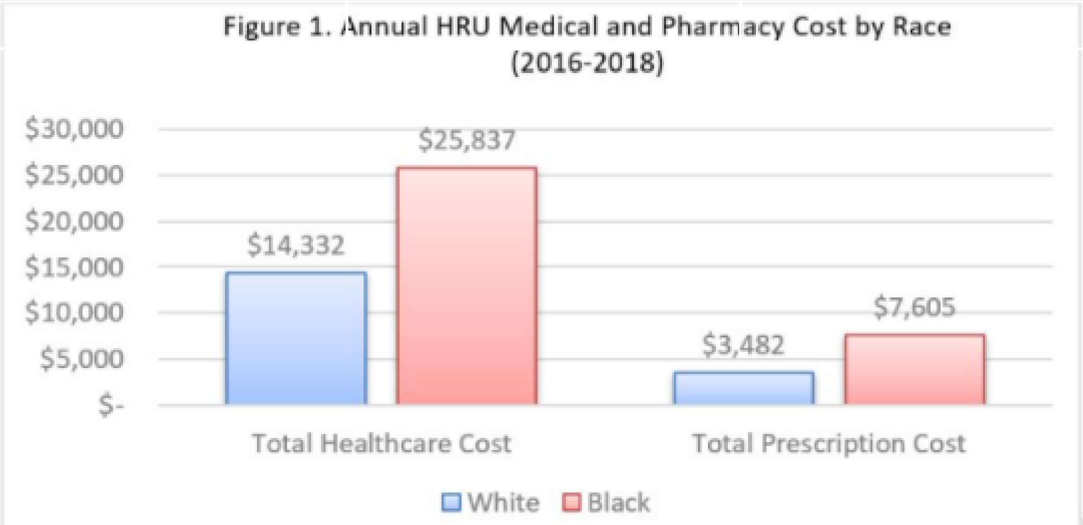


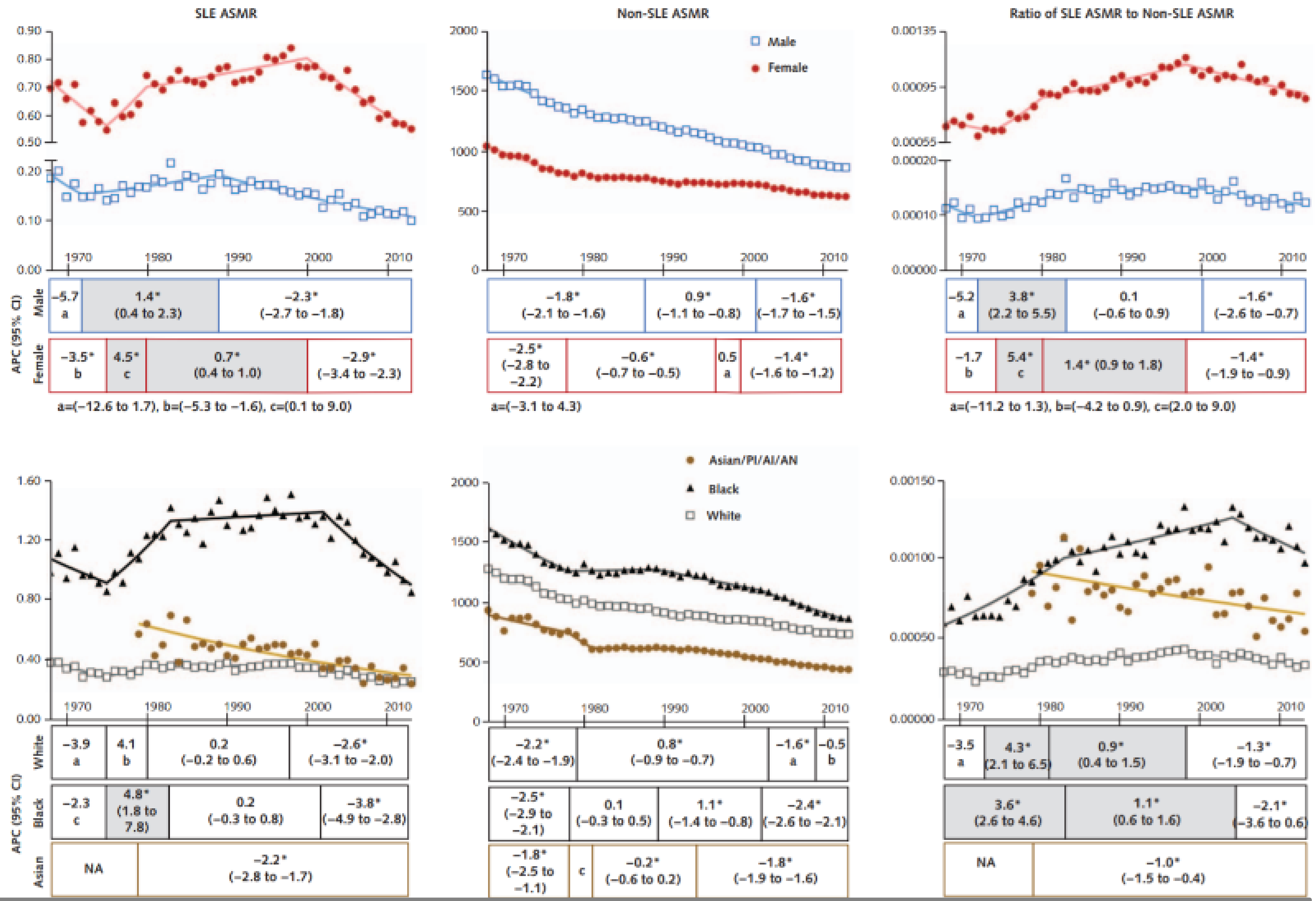
Figure 1. Annual HRU Medical and Pharmacy Cost by Race (2016-2018)

Conclusion: When compared with White SLE pts, Black SLE pts were younger, presented with more comorbidities, reported more physical limitations, and had higher expenses in emergency room visits and overall healthcare spending.

Grabich S, et al. ACR 2021, #596

46-year trend in SLE mortality rates

- Population-based study using CDC mortality database and census data
- Encompasses more than 99% of deaths of U.S. residents in all 50 states and the District of Columbia
- There were 50,249 SLE deaths and 100,851,288 non-SLE deaths from 1968 through 2013
- ASMR = annual age standardized mortality rates



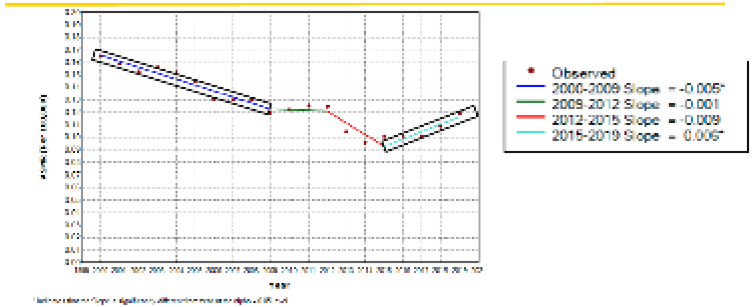
Conclusion: Rates of SLE mortality have decreased since 1968 but remain high relative to non-SLE mortality, and significant sex, racial, and regional disparities persist

Annals of Internal Medicine • Vol. 167 No. 11 • 5 December 2017

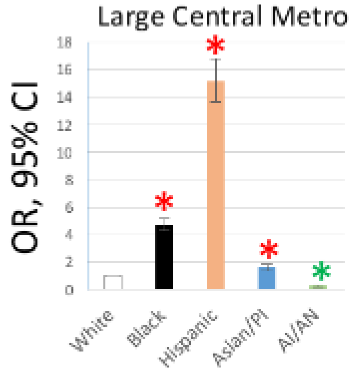
Lupus nephritis mortality in the US

- CDC database compiles mortality data from death certificates in all 50 states and District of Columbia
- Calculated ASMR per 100,000 persons for LN deaths for each year from 1999 to 2019
- 1999 to 2019, LN-ASMR decreased by 26.1%

- LN-ASMR in Black patients was 6-fold higher than in White patients; >2-fold higher than in all other race/ethnic groups
- LN-ASMR was also significantly higher in Hispanics, American-Indian/Alaska Natives, and Asian/Pacific Islanders than in White persons



After a continuous decrease for 16 years, LN mortality shows an increasing trend in the last 5 years



p <0.001

p <0.001

Urbanization is an effective modifier of Race/Ethnicity's effect on LN mortality. Residence in large central metro increased the risk.

ASMR: age-standardized mortality rate

Yen E, et al. ACR 2021, #454

Disparities in OA

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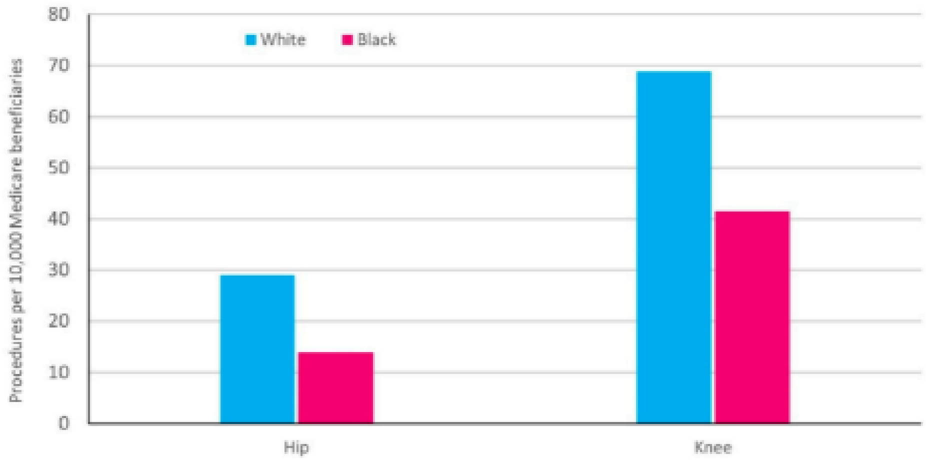
Racial disparities exist in OA pts

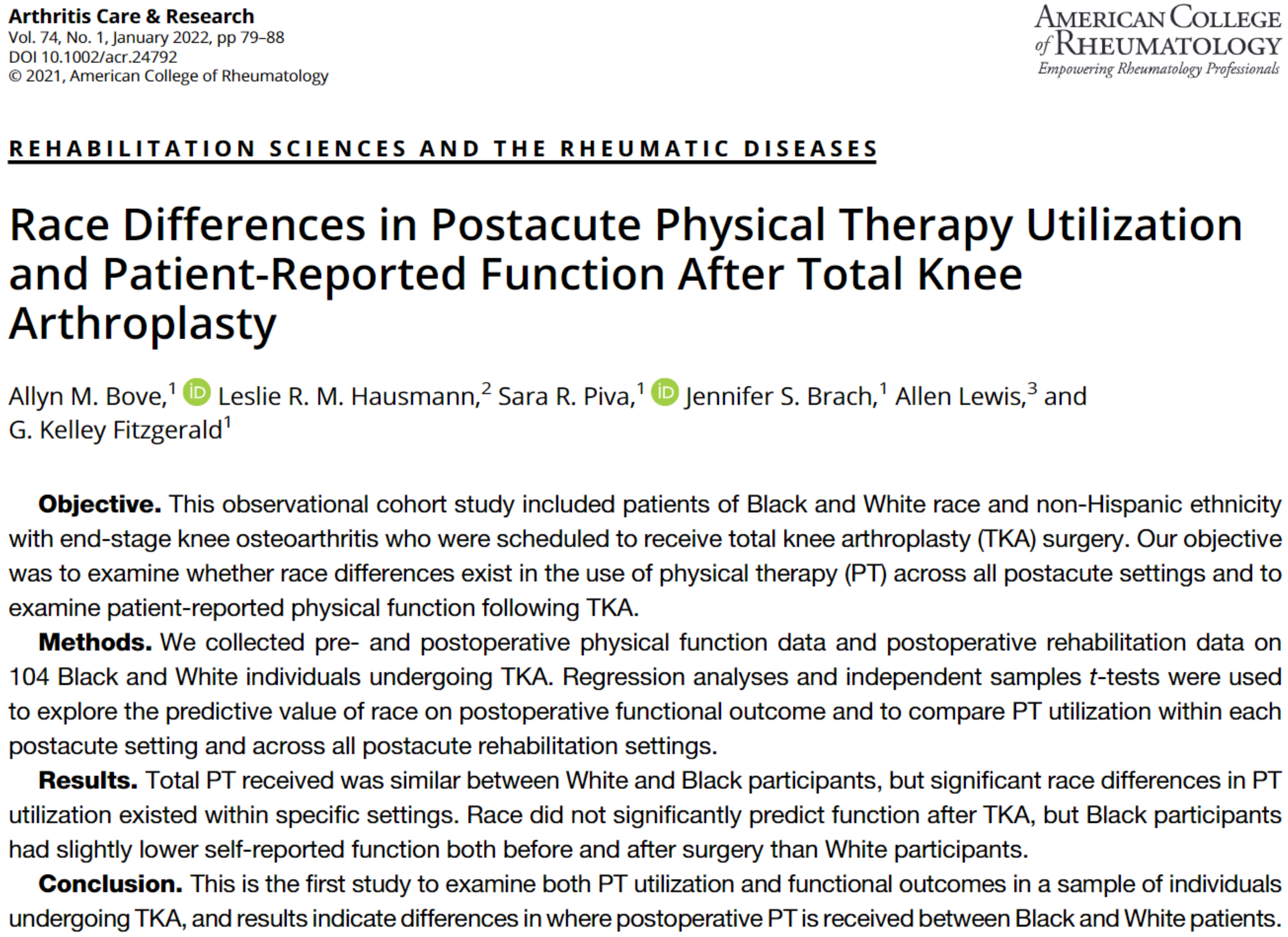
- African Americans experience a higher prevalence of knee OA [1] than Caucasian Americans but there is disparity in the incidence of TKR with higher rates in Caucasian Americans than African Americans [2]



Total joint arthroplasty

Conclusion: Black pts with OA are less like to get THR or TKR.

1. J Rheumatol. 2007; 34:172–80. [PubMed:17216685]
2. MMWR Morb Mortal Wkly Rep. 2009; 58:133–8. [PubMed:19229164]
3. Ann. Rheum. Dis. 2014, 73, 2107–2115



Arthritis Care & Research
Vol. 74, No. 1, January 2022, pp 79–88
DOI 10.1002/acr.24792

American College of Rheumatology
Empowering Rheumatology Professionals

REHABILITATION SCIENCES AND THE RHEUMATIC DISEASES

Race Differences in Postacute Physical Therapy Utilization and Patient-Reported Function After Total Knee Arthroplasty

Allyn M. Bove,[1] Leslie R. M. Hausmann,[2] Sara R. Piva,[1] Jennifer S. Brach,[1] Allen Lewis,[3] and G. Kelley Fitzgerald[1]

Objective. This observational cohort study included patients of Black and White race and non-Hispanic ethnicity with end-stage knee osteoarthritis who were scheduled to receive total knee arthroplasty (TKA) surgery. Our objective was to examine whether race differences exist in the use of physical therapy (PT) across all postacute settings and to examine patient-reported physical function following TKA.

Methods. We collected pre- and postoperative physical function data and postoperative rehabilitation data on 104 Black and White individuals undergoing TKA. Regression analyses and independent samples *t*-tests were used to explore the predictive value of race on postoperative functional outcome and to compare PT utilization within each postacute setting and across all postacute rehabilitation settings.

Results. Total PT received was similar between White and Black participants, but significant race differences in PT utilization existed within specific settings. Race did not significantly predict function after TKA, but Black participants had slightly lower self-reported function both before and after surgery than White participants.

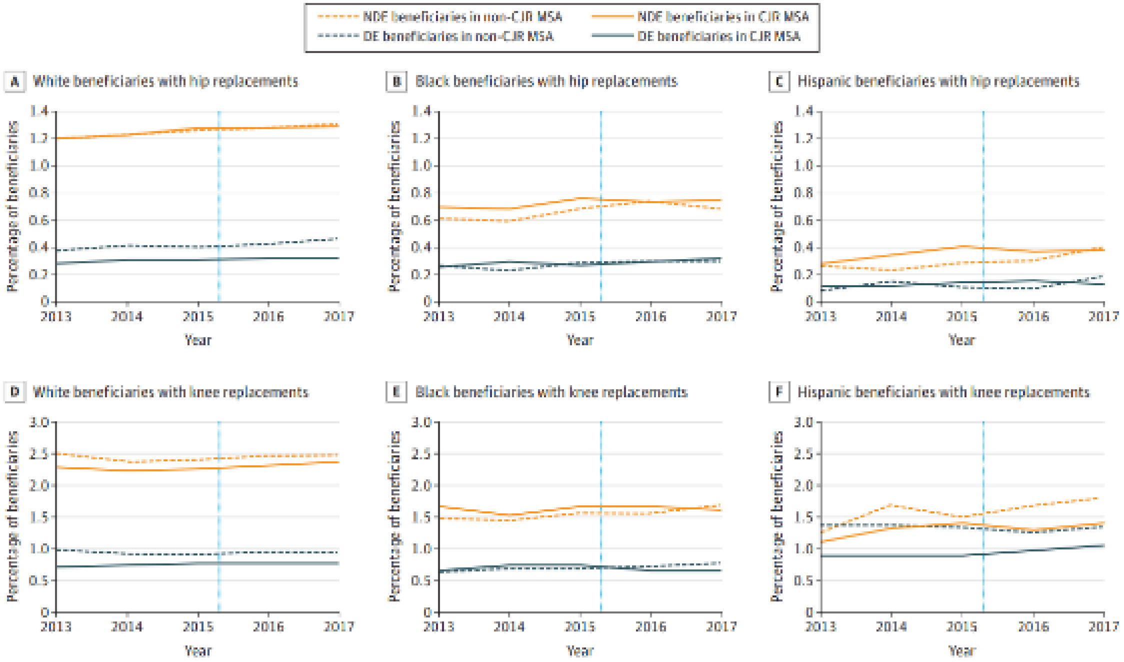
Conclusion. This is the first study to examine both PT utilization and functional outcomes in a sample of individuals undergoing TKA, and results indicate differences in where postoperative PT is received between Black and White patients.

- 104 pts
- Black participants received an average of 2.6 fewer hours of total post-acute PT following TKA than White participants.
- This difference was not statistically significant.
- Minor differences were present across treatment settings, with Black participants overall receiving more SNF and home PT but less outpatient and total PT.

https://onlinelibrary.wiley.com/doi/epdf/10.1002/acr.24792

Association of the Comprehensive Care for Joint Replacement (CJR) Model With Disparities in the Use of Total Hip and Total Knee Replacement

- To examine the association of the CJR model (2016) with racial/ethnic and socioeconomic disparities in the use of elective THR and TKR
- Hospitals are held accountable for the spending and quality of care during the inpatient stay for joint replacements and the 90-day post-acute care period (episode). Hospitals are eligible to earn financial rewards if their spending for each 90-day episode is lower than a quality-adjusted target price, or hospitals are assessed penalties if their spending per episode is higher than this target price.
- 4,447,205 Medicare beneficiaries, of which 45.5% resided in MSAs (metropolitan statistical areas) with the CJR model
- CJR model was associated with a 0.05% (95% CI, 0.01-0.09; P = .02) increase in THR use for non-Hispanic White non–dual-eligible beneficiaries in MSAs with the CJR model compared with MSAs without the CJR mode



Conclusion: The CJR model was associated with a modest increase in the difference in TKR use among non-Hispanic Black vs non-Hispanic White beneficiaries; no difference was found for THR. Payment reform has the potential to exacerbate disparities in access to joint replacement care.

JAMA Network Open. 2021;4(5):e2111858. doi:10.1001/jamanetworkopen.2021.11858

Disparities in PsA

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Racial disparities in comorbidities of patients with Psoriatic Arthritis

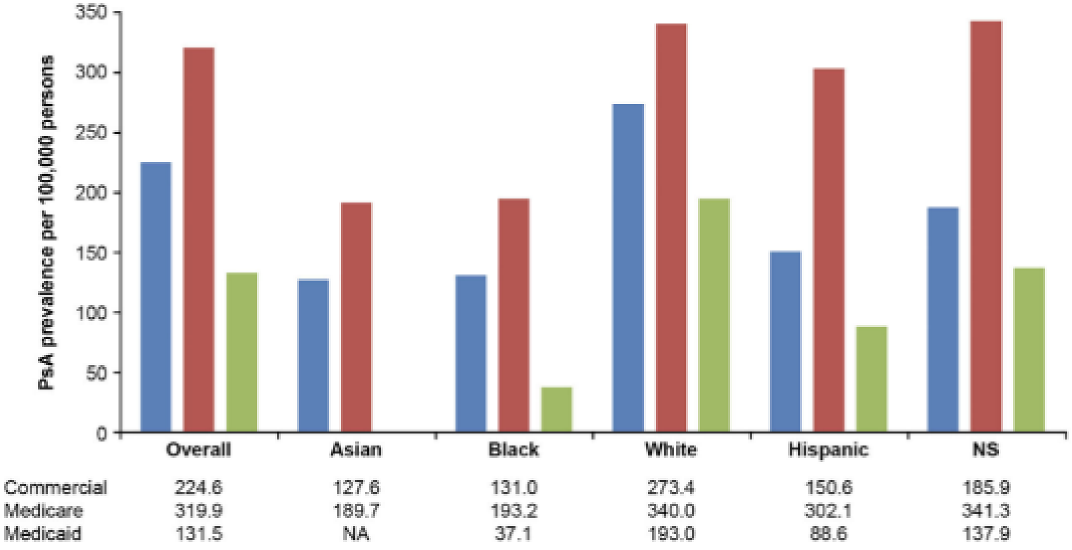
- 26,010 PsA pts; 95% Caucasian, 5% AA
- 63% Females, 37% Males
- 17% smokers (n=4350), 4150 Caucasian, 200 AA ($p<0.05$)
- HTN, Diabetes, Obesity, and Gout found predominantly in AA PsA patients

	Caucasian	**African American**	**P value**
NSAIDs	80%	78%	<0.0001
TNFi	51%	41%	<0.0001
DMARDs	72%	98%	<0.0001

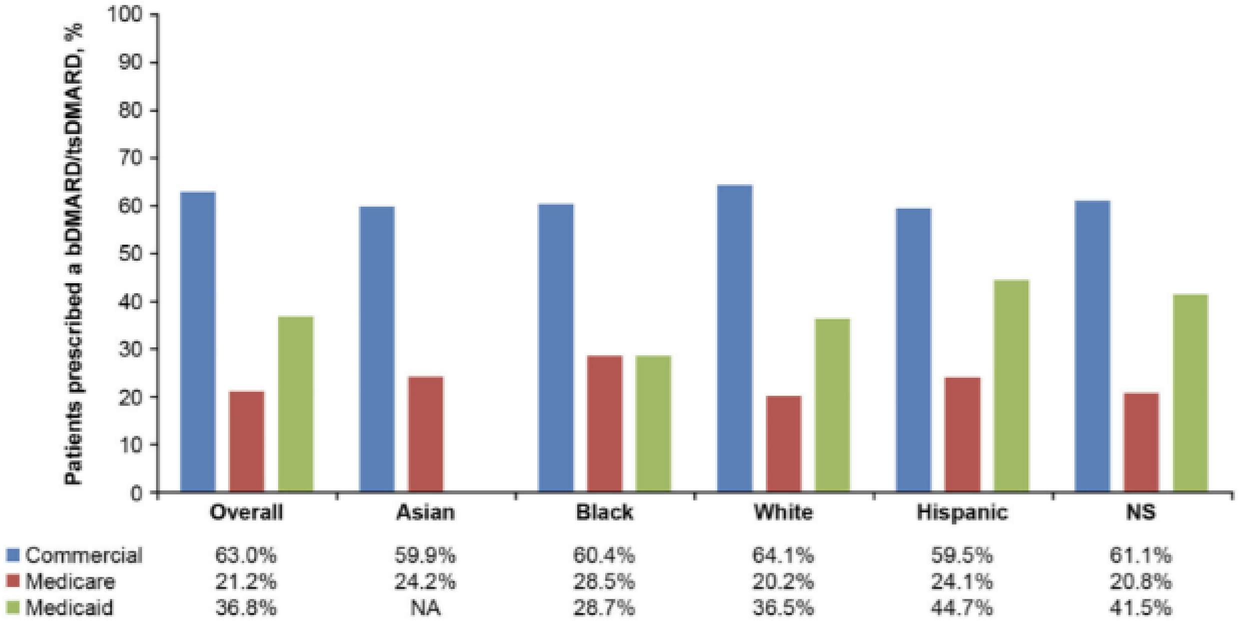
Conclusion: More comorbid conditions found in AA pts which may impact choice of medications.

Jaleel S, et al. ACR 2021, #1780

Racial Differences in Prevalence and Treatment for PsA and AS by Insurance Coverage in the USA



	Overall	Asian	Black	White	Hispanic	NS
🟦 Commercial	224.6	127.6	131.0	273.4	150.6	185.9
🟥 Medicare	319.9	189.7	193.2	340.0	302.1	341.3
🟩 Medicaid	131.5	NA	37.1	193.0	88.6	137.9



	Overall	Asian	Black	White	Hispanic	NS
🟦 Commercial	63.0%	59.9%	60.4%	64.1%	59.5%	61.1%
🟥 Medicare	21.2%	24.2%	28.5%	20.2%	24.1%	20.8%
🟩 Medicaid	36.8%	NA	28.7%	36.5%	44.7%	41.5%

- A descriptive, retrospective cross-sectional US claims database
- The percentage of pts prescribed bDMARDs/tsDMARDs was highest for commercial insurance enrollees (PsA 63%, AS 43%) and lowest for Medicare enrollees (PsA 21%, AS 11%).
- The proportion of pts who saw a rheumatologist was lower for Medicaid enrollees (PsA 12%, AS 10%) than for commercial insurance or Medicare enrollees (PsA 68%, 55%; AS 67%, 42%).

Conclusion: The prevalence and treatment of PsA and AS differs by race/ethnicity, insurance coverage, and sex in the USA. Efforts for improving access to care are needed to improve outcomes among all patients.

Ogdie, A, et al. Rheumatol Ther (2021) 8:1725–1739 https://doi.org/10.1007/s40744-021-00370-4

Disparities in Telemedicine

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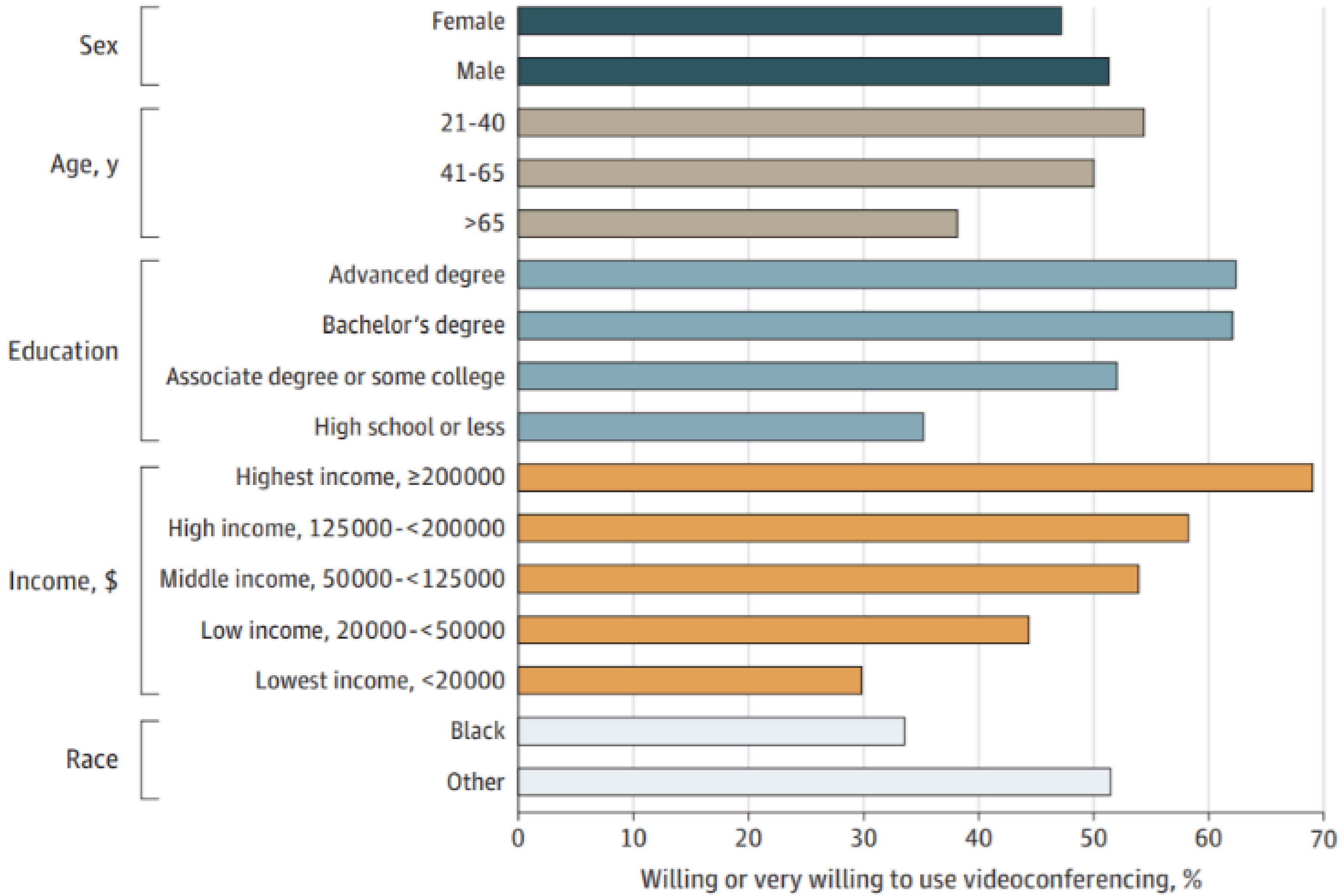
Disparities in telemedicine



1453 pts from the RAND American Life Panel

Comparison for sex $P < .05$; all other comparisons $P < .001$.

Conclusion: Pts who were Black, aged >65 years, or had less education were less likely to express willingness for a virtual visit.

jama netw open. 2020;3(10):e2022302. doi:10.1001/jamanetworkopen.2020.22302

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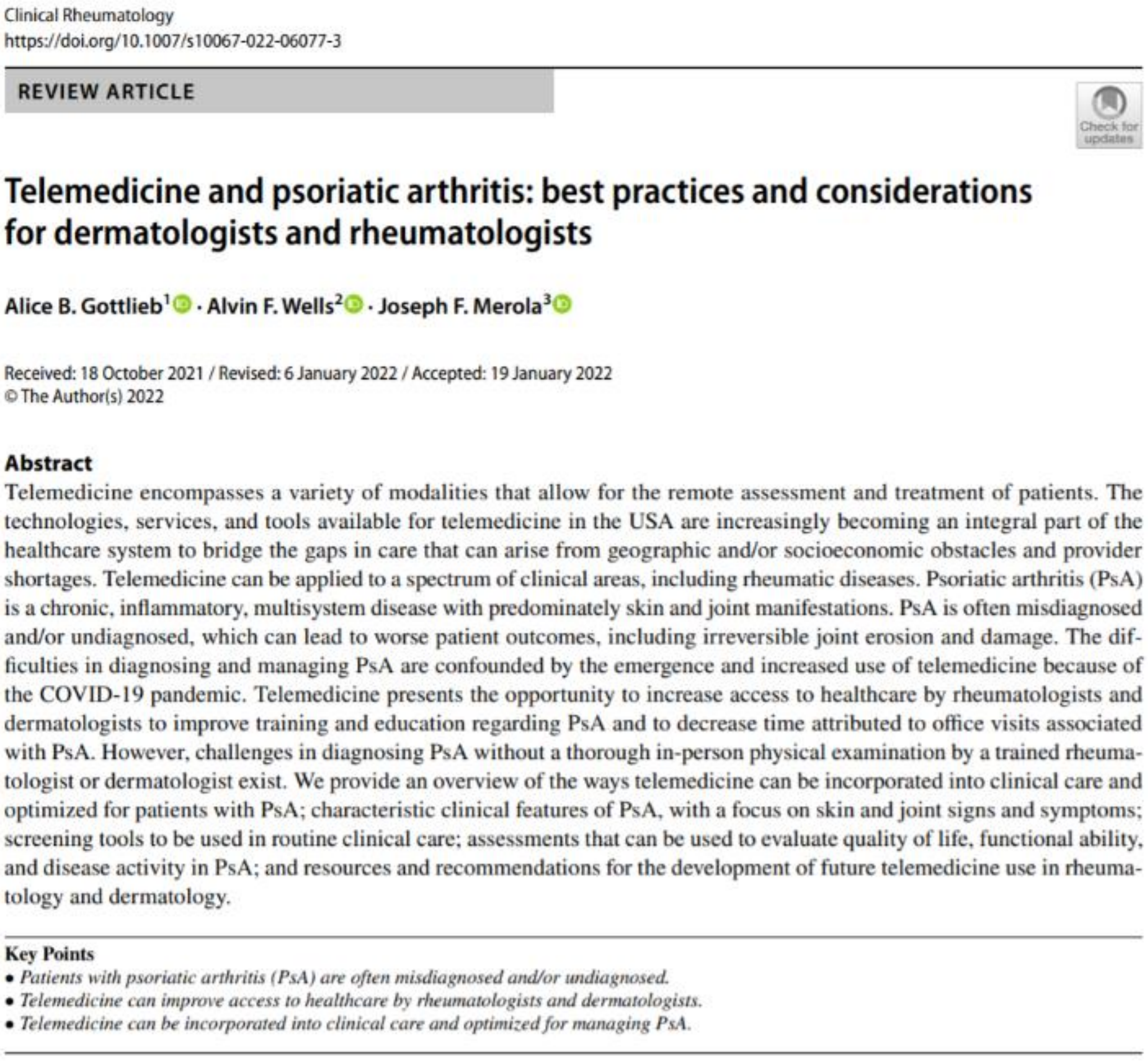


Clinical Rheumatology
https://doi.org/10.1007/s10067-022-06077-3

REVIEW ARTICLE

Telemedicine and psoriatic arthritis: best practices and considerations for dermatologists and rheumatologists

Alice B. Gottlieb[1] · **Alvin F. Wells**[2] · **Joseph F. Merola**[3]

Received: 18 October 2021 / Revised: 6 January 2022 / Accepted: 19 January 2022

Abstract

Telemedicine encompasses a variety of modalities that allow for the remote assessment and treatment of patients. The technologies, services, and tools available for telemedicine in the USA are increasingly becoming an integral part of the healthcare system to bridge the gaps in care that can arise from geographic and/or socioeconomic obstacles and provider shortages. Telemedicine can be applied to a spectrum of clinical areas, including rheumatic diseases. Psoriatic arthritis (PsA) is a chronic, inflammatory, multisystem disease with predominately skin and joint manifestations. PsA is often misdiagnosed and/or undiagnosed, which can lead to worse patient outcomes, including irreversible joint erosion and damage. The difficulties in diagnosing and managing PsA are confounded by the emergence and increased use of telemedicine because of the COVID-19 pandemic. Telemedicine presents the opportunity to increase access to healthcare by rheumatologists and dermatologists to improve training and education regarding PsA and to decrease time attributed to office visits associated with PsA. However, challenges in diagnosing PsA without a thorough in-person physical examination by a trained rheumatologist or dermatologist exist. We provide an overview of the ways telemedicine can be incorporated into clinical care and optimized for patients with PsA; characteristic clinical features of PsA, with a focus on skin and joint signs and symptoms; screening tools to be used in routine clinical care; assessments that can be used to evaluate quality of life, functional ability, and disease activity in PsA; and resources and recommendations for the development of future telemedicine use in rheumatology and dermatology.

Key Points

- *Patients with psoriatic arthritis (PsA) are often misdiagnosed and/or undiagnosed.*
- *Telemedicine can improve access to healthcare by rheumatologists and dermatologists.*
- *Telemedicine can be incorporated into clinical care and optimized for managing PsA.*

Health Equity

- A desirable goal/standard that entails special efforts to improve the health of those who have experienced social or economic disadvantage.

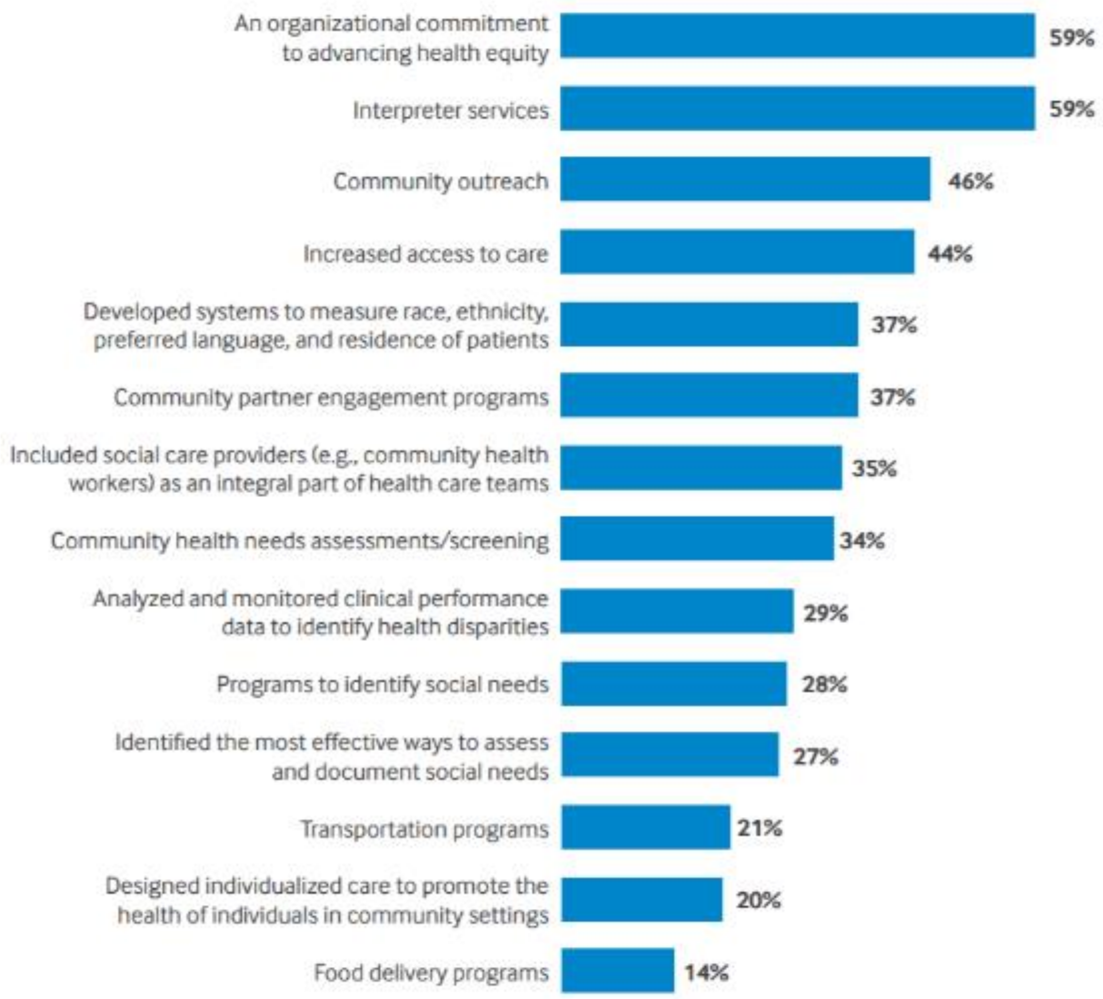
- Requires continuous efforts focused on elimination of health disparities, including disparities in health care and in the living and working conditions that influence health

- Requires continuous efforts to maintain a desired state of equity after particular health disparities are eliminated.

- It is the goal that every person is equally able to live a healthy life regardless of their ……

https://kcmedicine.org/about-the-foundation/statement-on-health-equity/

What can healthcare organizations do?



What programs and commitments has your organization made to address disparities in care delivery?

Base: 553 (multiple responses)

NEJM Catalyst (catalyst.nejm.org) © Massachusetts Medical Society

A

This is a sample text. Insert your desired text here.

Health disparities

We know what they are

BRIDGING THE EQUITY GAP

Health Equity

How do we get here?

A

Do not use race or ethnicity at the beginning of case presentations

BRIDGING THE EQUITY GAP

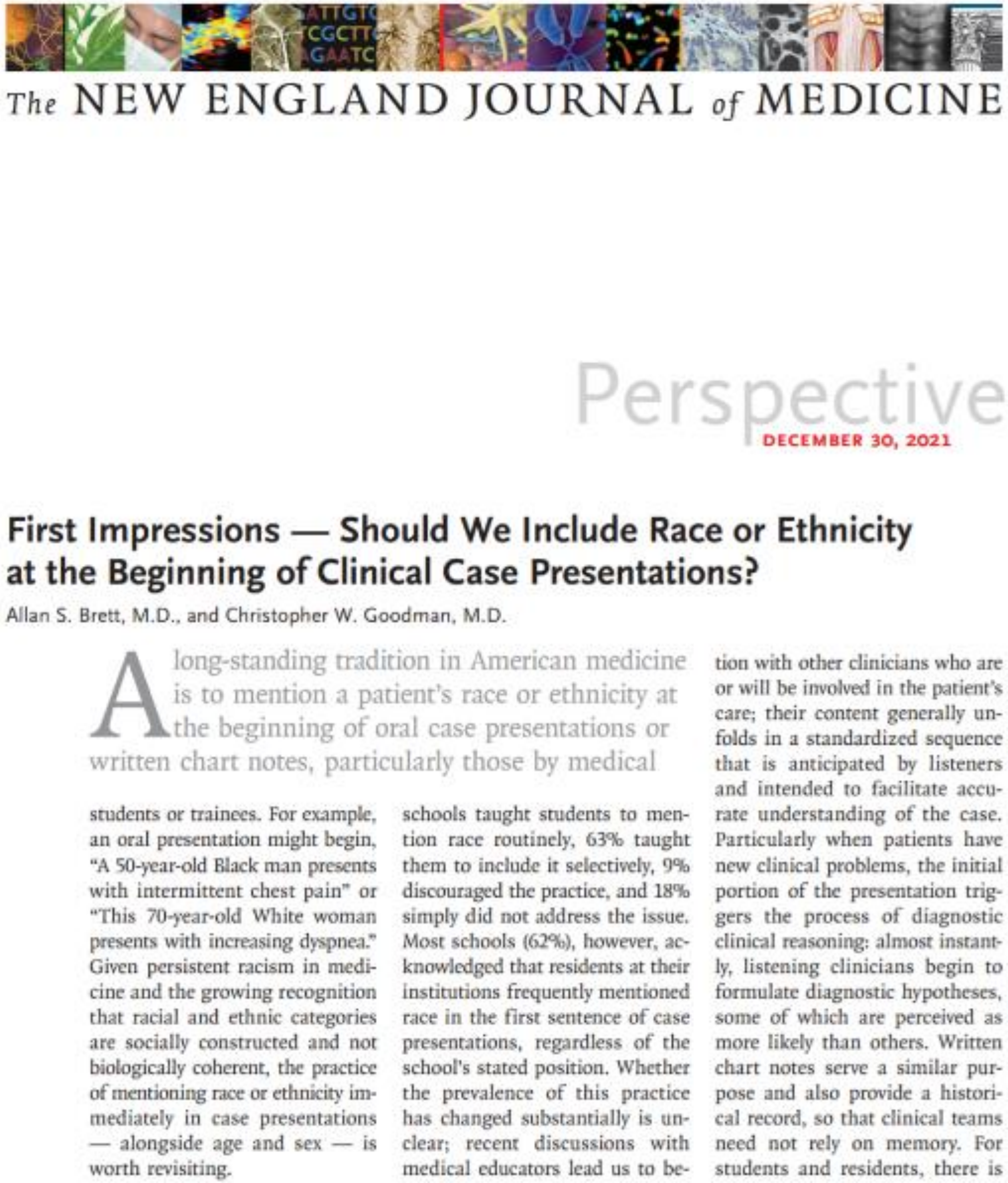
Current situation

We know what they are

Ideal situation

How do we get here?

What can medical schools do?



The NEW ENGLAND JOURNAL of MEDICINE

Perspective

DECEMBER 30, 2021

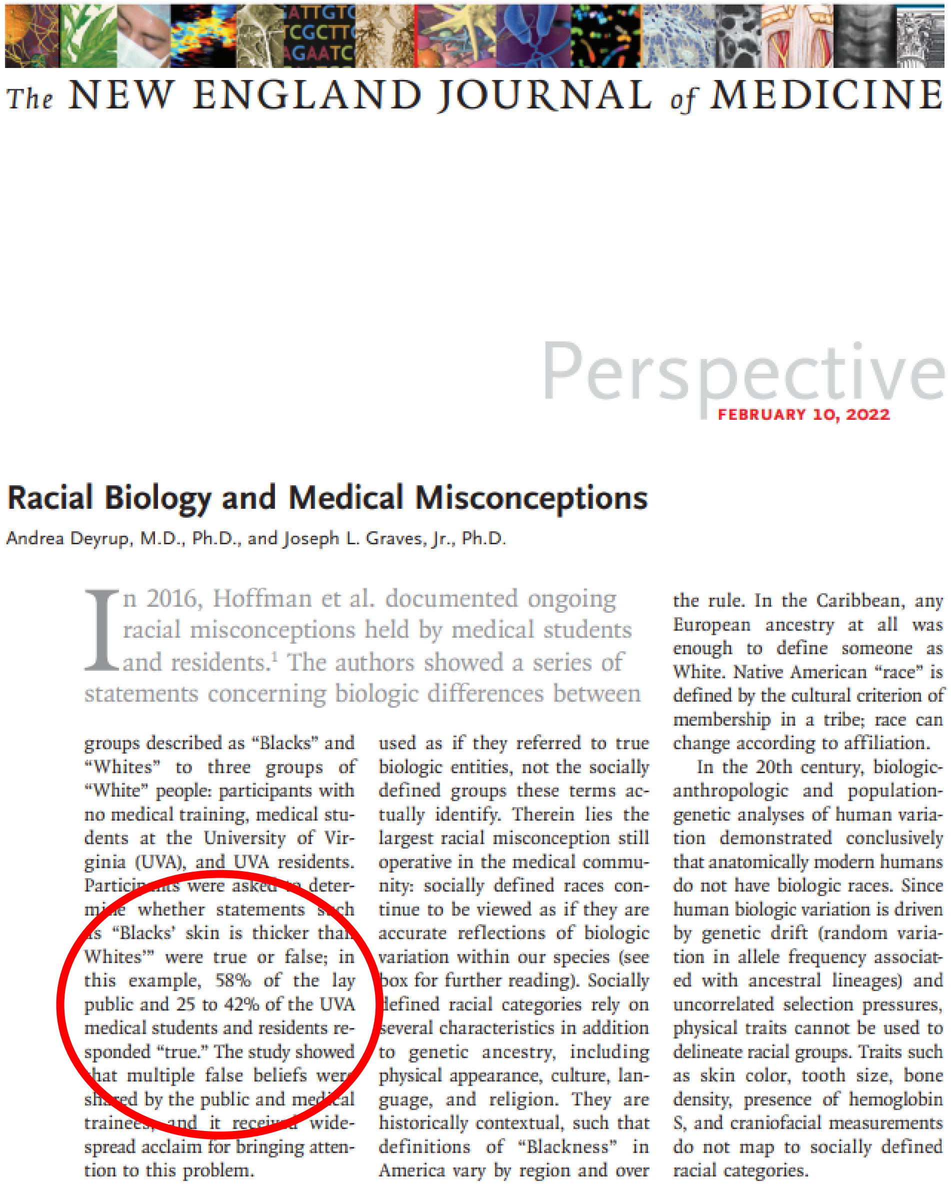
First Impressions — Should We Include Race or Ethnicity at the Beginning of Clinical Case Presentations?

Allan S. Brett, M.D., and Christopher W. Goodman, M.D.

A long-standing tradition in American medicine is to mention a patient's race or ethnicity at the beginning of oral case presentations or written chart notes, particularly those by medical students or trainees. For example, an oral presentation might begin, "A 50-year-old Black man presents with intermittent chest pain" or "This 70-year-old White woman presents with increasing dyspnea." Given persistent racism in medicine and the growing recognition that racial and ethnic categories are socially constructed and not biologically coherent, the practice of mentioning race or ethnicity immediately in case presentations — alongside age and sex — is worth revisiting.

schools taught students to mention race routinely, 63% taught them to include it selectively, 9% discouraged the practice, and 18% simply did not address the issue. Most schools (62%), however, acknowledged that residents at their institutions frequently mentioned race in the first sentence of case presentations, regardless of the school's stated position. Whether the prevalence of this practice has changed substantially is unclear; recent discussions with medical educators lead us to be-

tion with other clinicians who are or will be involved in the patient's care; their content generally unfolds in a standardized sequence that is anticipated by listeners and intended to facilitate accurate understanding of the case. Particularly when patients have new clinical problems, the initial portion of the presentation triggers the process of diagnostic clinical reasoning: almost instantly, listening clinicians begin to formulate diagnostic hypotheses, some of which are perceived as more likely than others. Written chart notes serve a similar purpose and also provide a historical record, so that clinical teams need not rely on memory. For students and residents, there is



The NEW ENGLAND JOURNAL of MEDICINE

Perspective

FEBRUARY 10, 2022

Racial Biology and Medical Misconceptions

Andrea Deyrup, M.D., Ph.D., and Joseph L. Graves, Jr., Ph.D.

In 2016, Hoffman et al. documented ongoing racial misconceptions held by medical students and residents.[1] The authors showed a series of statements concerning biologic differences between groups described as "Blacks" and "Whites" to three groups of "White" people: participants with no medical training, medical students at the University of Virginia (UVA), and UVA residents. Participants were asked to determine whether statements such as "Blacks' skin is thicker than Whites'" were true or false; in this example, 58% of the lay public and 25 to 42% of the UVA medical students and residents responded "true." The study showed that multiple false beliefs were shared by the public and medical trainees, and it received widespread acclaim for bringing attention to this problem.

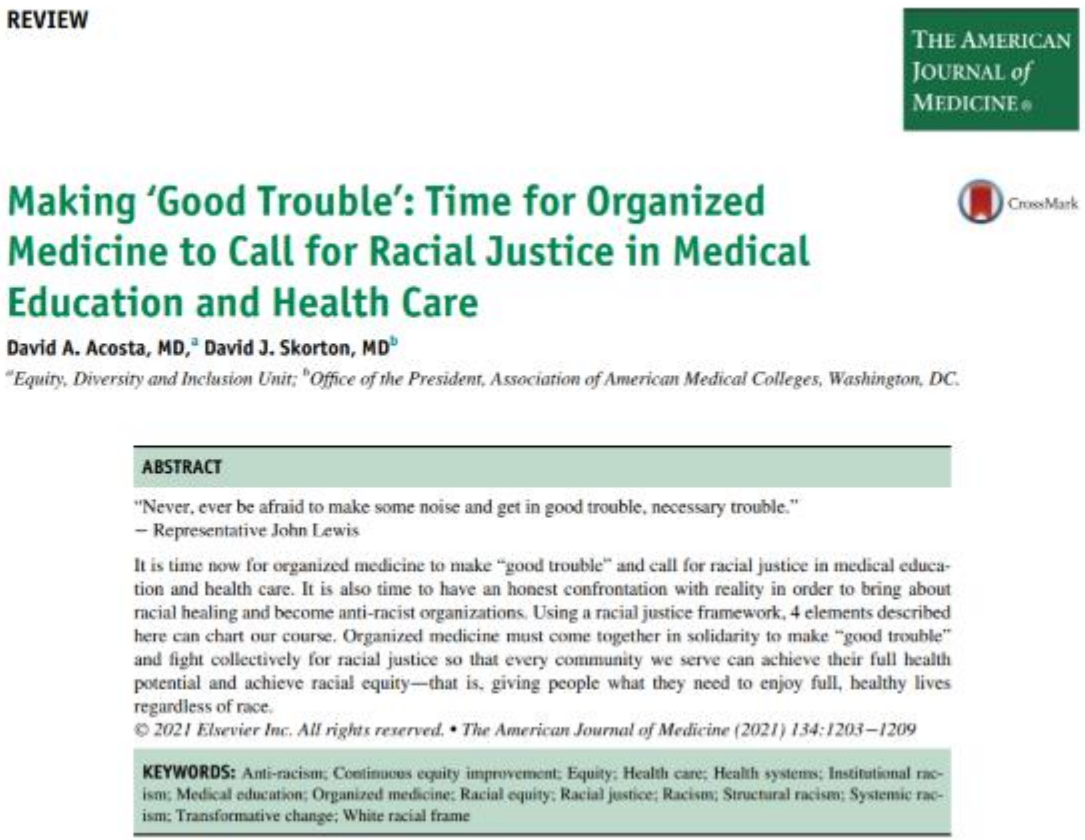
used as if they referred to true biologic entities, not the socially defined groups these terms actually identify. Therein lies the largest racial misconception still operative in the medical community: socially defined races continue to be viewed as if they are accurate reflections of biologic variation within our species (see box for further reading). Socially defined racial categories rely on several characteristics in addition to genetic ancestry, including physical appearance, culture, language, and religion. They are historically contextual, such that definitions of "Blackness" in America vary by region and over

the rule. In the Caribbean, any European ancestry at all was enough to define someone as White. Native American "race" is defined by the cultural criterion of membership in a tribe; race can change according to affiliation.

In the 20th century, biologic-anthropologic and population-genetic analyses of human variation demonstrated conclusively that anatomically modern humans do not have biologic races. Since human biologic variation is driven by genetic drift (random variation in allele frequency associated with ancestral lineages) and uncorrelated selection pressures, physical traits cannot be used to delineate racial groups. Traits such as skin color, tooth size, bone density, presence of hemoglobin S, and craniofacial measurements do not map to socially defined racial categories.

NEJM 2021;385:2497
NEJM 2022;386:501

What can medical schools do?



REVIEW

THE AMERICAN JOURNAL of MEDICINE®

Making 'Good Trouble': Time for Organized Medicine to Call for Racial Justice in Medical Education and Health Care

David A. Acosta, MD,[a] **David J. Skorton, MD**[b]

[a]Equity, Diversity and Inclusion Unit; [b]Office of the President, Association of American Medical Colleges, Washington, DC.

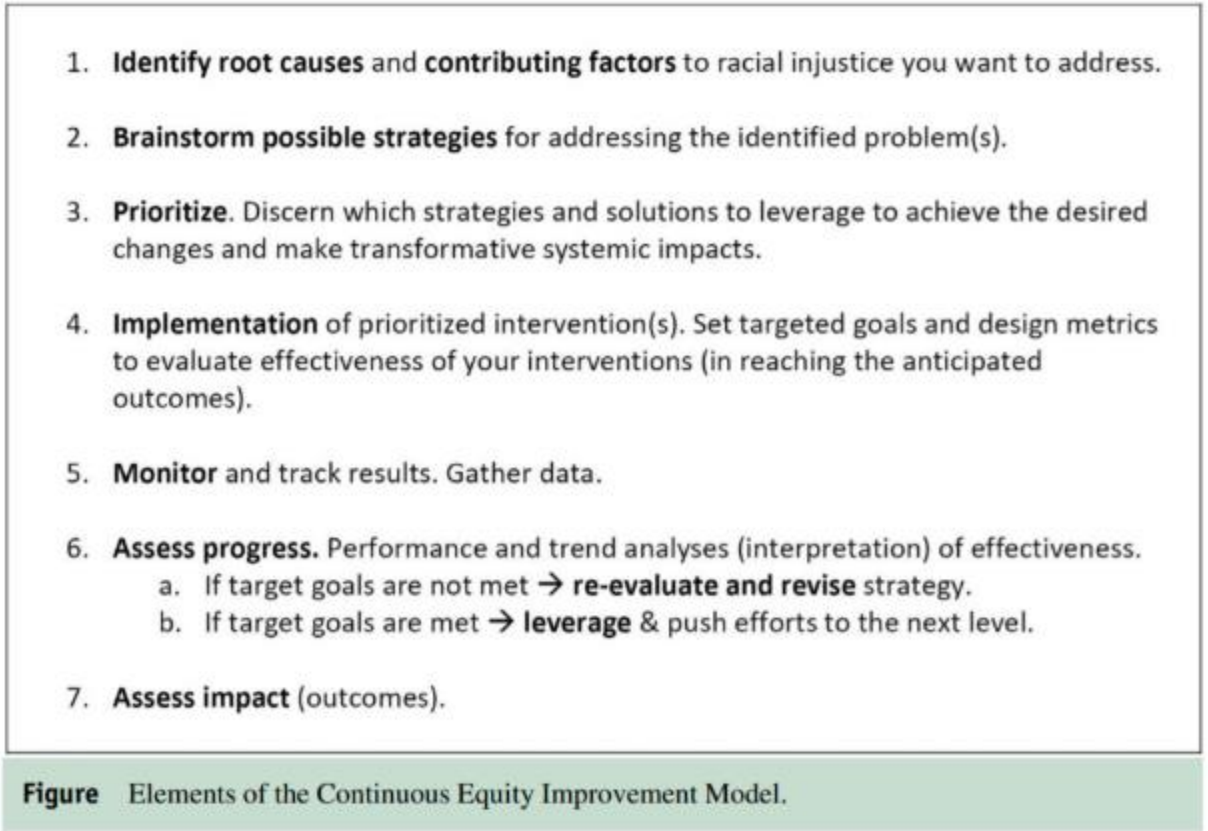
ABSTRACT

"Never, ever be afraid to make some noise and get in good trouble, necessary trouble."
– Representative John Lewis

It is time now for organized medicine to make "good trouble" and call for racial justice in medical education and health care. It is also time to have an honest confrontation with reality in order to bring about racial healing and become anti-racist organizations. Using a racial justice framework, 4 elements described here can chart our course. Organized medicine must come together in solidarity to make "good trouble" and fight collectively for racial justice so that every community we serve can achieve their full health potential and achieve racial equity—that is, giving people what they need to enjoy full, healthy lives regardless of race.

• *The American Journal of Medicine (2021) 134:1203–1209*

KEYWORDS: Anti-racism; Continuous equity improvement; Equity; Health care; Health systems; Institutional racism; Medical education; Organized medicine; Racial equity; Racial justice; Racism; Structural racism; Systemic racism; Transformative change; White racial frame



1. **Identify root causes** and **contributing factors** to racial injustice you want to address.
2. **Brainstorm possible strategies** for addressing the identified problem(s).
3. **Prioritize**. Discern which strategies and solutions to leverage to achieve the desired changes and make transformative systemic impacts.
4. **Implementation** of prioritized intervention(s). Set targeted goals and design metrics to evaluate effectiveness of your interventions (in reaching the anticipated outcomes).
5. **Monitor** and track results. Gather data.
6. **Assess progress.** Performance and trend analyses (interpretation) of effectiveness.
   a. If target goals are not met → **re-evaluate and revise** strategy.
   b. If target goals are met → **leverage** & push efforts to the next level.
7. **Assess impact** (outcomes).

Figure Elements of the Continuous Equity Improvement Model.

Congressman John Lewis

https://doi.org/10.1016/j.amjmed.2021.04.034

A

Do not use race or ethnicity at the beginning of case presentations

B

Erase pharmacy desserts

Current situation

We know what they are

BRIDGING THE EQUITY GAP

Ideal situation

How do we get here?

POLLING QUESTION #2 - Pharmacoequity is critical to reach equity. In a recent, study which of the following cities was one the cities with the greatest pharmacy disparities?

A. New York
B. Montpelier
C. August
D. Milwaukee
E. Charleston

Pharmacoequity is a part of Health Equity

- Examined the availability and geographic accessibility of pharmacies across neighborhoods based on their racial/ethnic composition in 30 most populous US cities.
- Disparities were greatest in Chicago, Los Angeles, Baltimore, Philadelphia, Milwaukee, Dallas, Boston, and Albuquerque

Fewer Pharmacies In Black And Hispanic/Latino Neighborhoods Compared With White Or Diverse Neighborhoods, 2007–15

May 3, 2021 | By Jenny S. Guadamuz, PhD, Dima M. Qato, PharmD, MPH, PhD and Jocelyn R. Wilder, Morgane C. Mouslim, Shannon N. Zenk, G. Caleb Alexander.

Press contact: **Stephanie Hedt** [illegible]

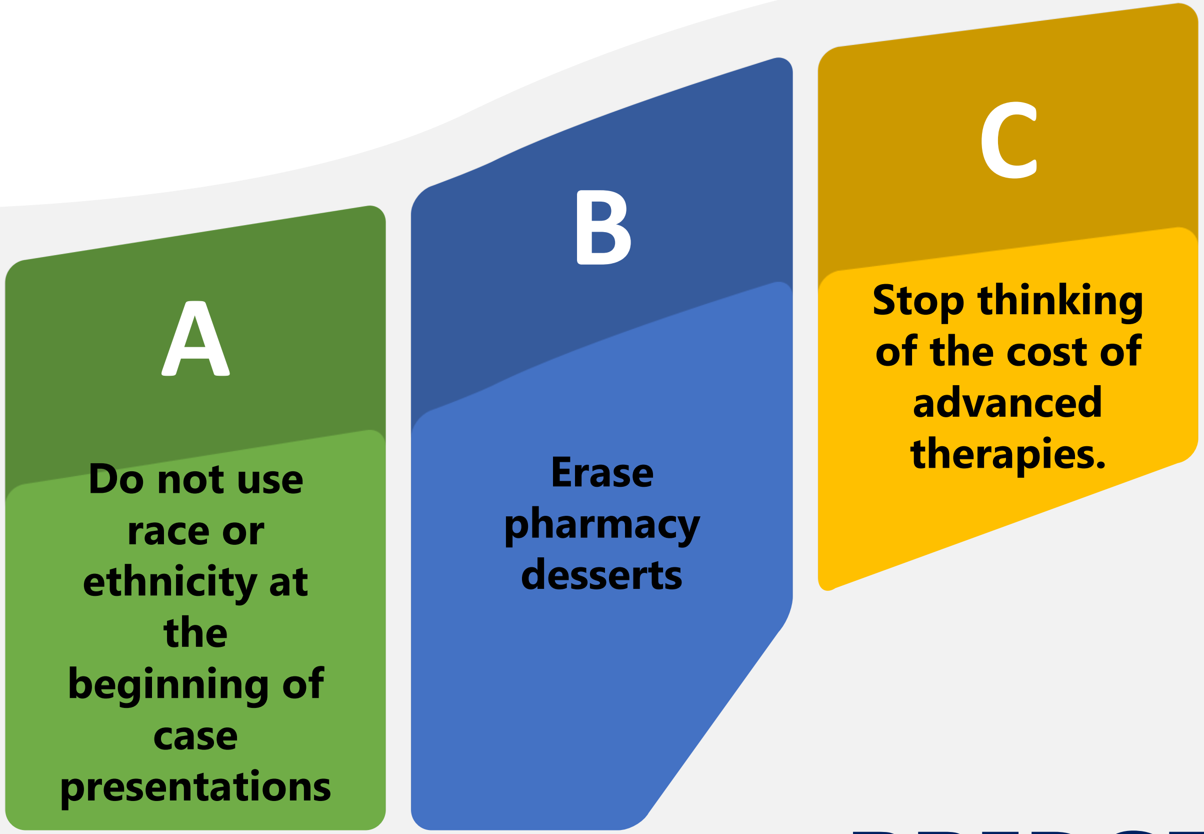
Los Angeles, CA Pharmacy Deserts (2015)*

- 🟥 1 mile of greater
- 🟧 1/2 mile
- ☐ No pharmacy desert

*map restricted to low-income areas

Conclusion: Pharmacoquity should be a part of health equity.

Essien UR, et al. JAMA 2021;326:1793.



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Do not equate cost with worth

Cost ≠ **Worth**

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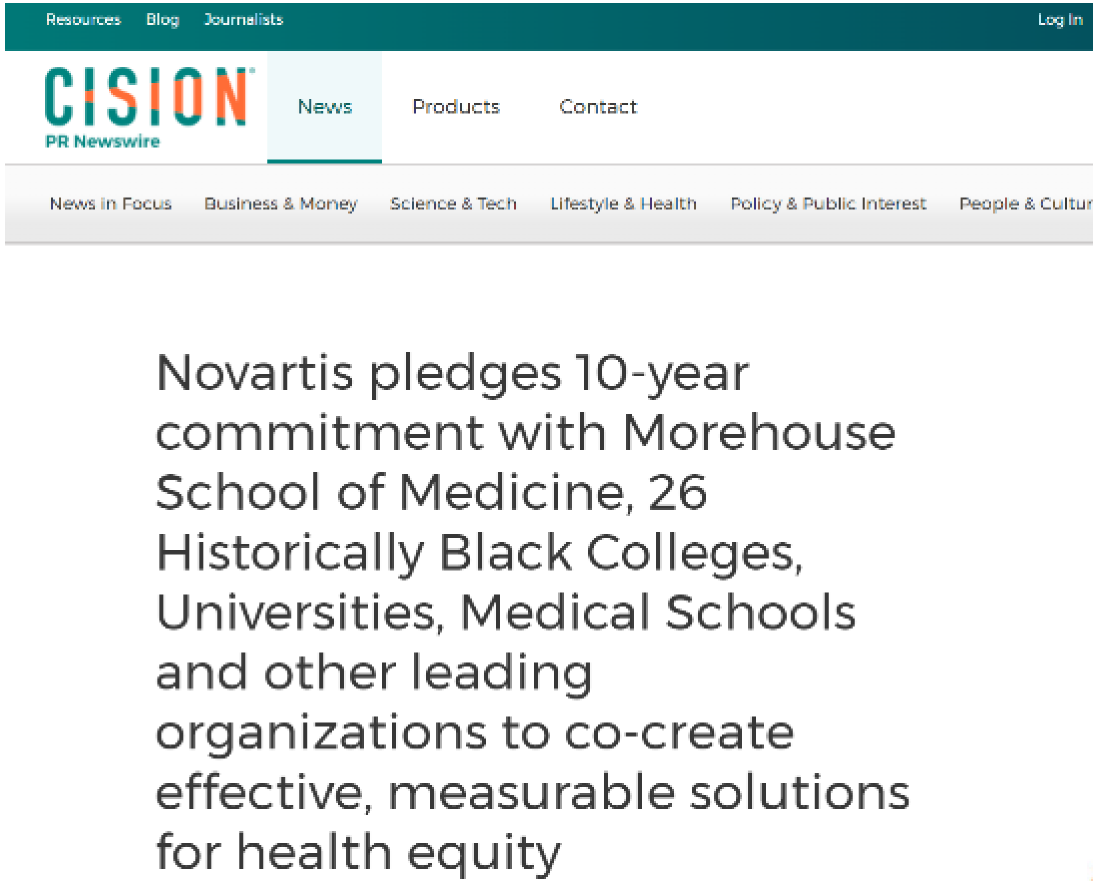
How do we get here?

What can corporate America do?



Novartis pledges 10-year commitment with Morehouse School of Medicine, 26 Historically Black Colleges, Universities, Medical Schools and other leading organizations to co-create effective, measurable solutions for health equity

- Over an initial period of ten years, the collaboration will focus on four key areas:

1. **Enable the next generation of Black and African American leaders** by creating equitable access to high quality education and professional development for future leaders, in health science, technology and business-related fields.
2. **Support the establishment of Digitally Enabled Clinical Trial Centers of Excellence,** managed and led by clinical researchers of color, to build trust, increase diversity and inclusivity in clinical trials, and contribute to improved health outcomes for people of color.
3. **Research and validate existing data standards** that drive diagnosis, clinical trial endpoints and population health policy to identify areas for increased inclusivity and ensure accurate data collection and unbiased treatment decisions.
4. **Establish Digitally Enabled Research Centers on the impact of the environment and climate change on health** to identify solutions to environmental and climate issues that disproportionately affect communities of color.

https://www.prnewswire.com/news-releases/novartis-pledges-10-year-commitment-with-morehouse-school-of-medicine-26-historically-black-colleges-universities-medical-schools-and-other-leading-organizations-to-co-create-effective-measurable-solutions-for-health-equity-301336942.html

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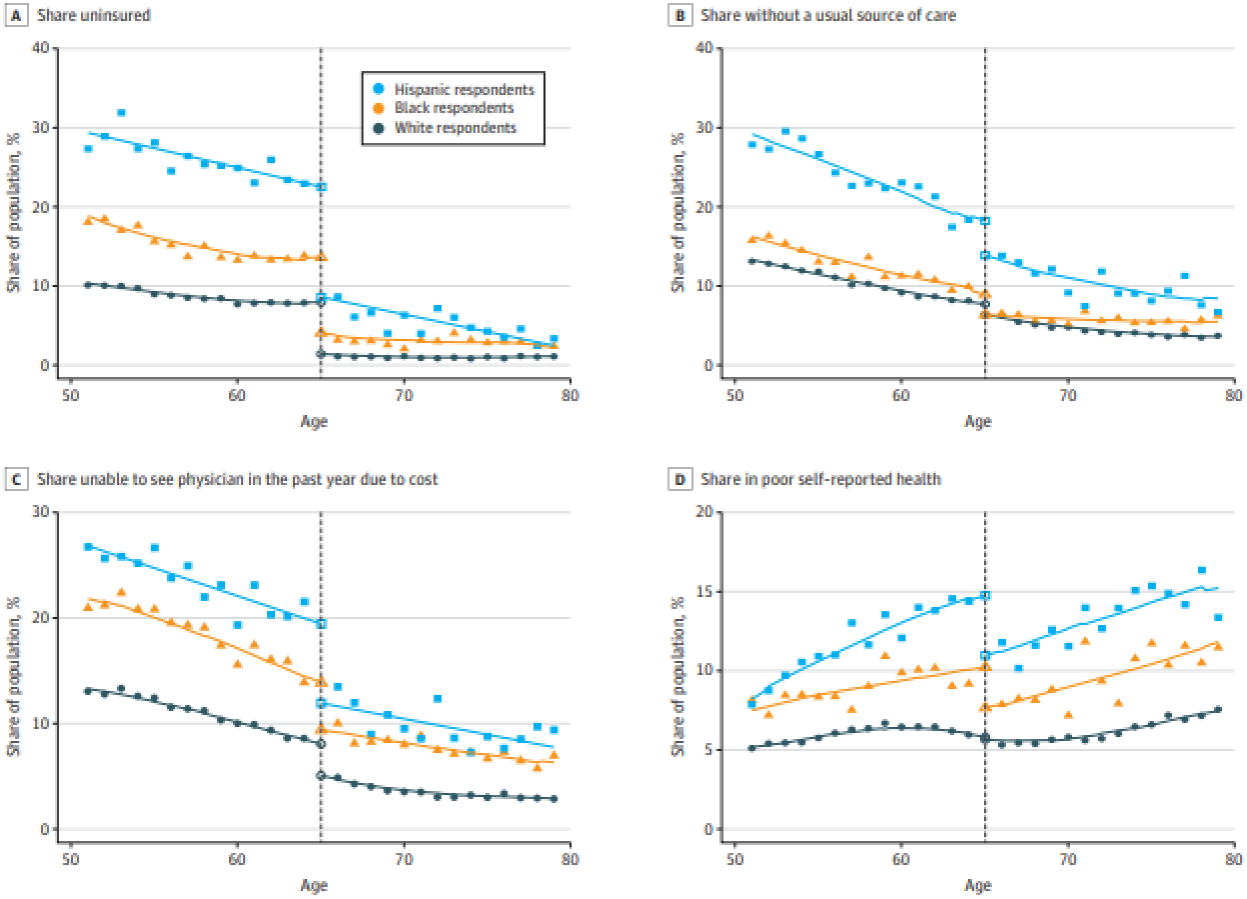
What can we as a country do?

- Entry into Medicare is associated with the largest population-level changes in coverage, access, and health especially in regions where uninsurance rates are the highest
- Medicare is associated with sharp reductions in racial and ethnic disparities at age 65
- Medicare does not eliminate disparities

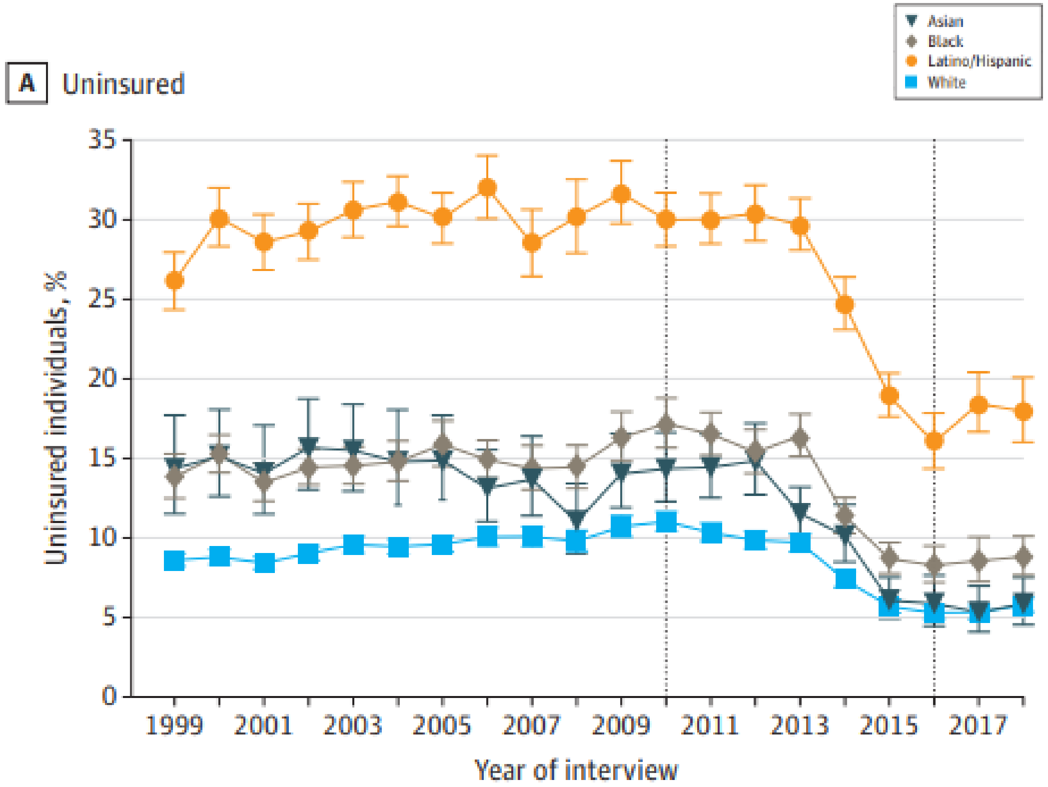


Conclusion: expanding Medicare may be a viable means to reduce racial and ethnic disparities and advance health equity by closing coverage gaps across the US

JAMA Intern Med. 2021;181(9):1207-1215. doi:10.1001/jamainternmed.2021.3922 Published online July 26, 2021.

Trends in Differences in Health Status and Health Care Access and Affordability by Race and Ethnicity in the US, 1999-2018

- Data source is the National Health Interview Survey from years 1999 to 2018. Rates are adjusted for age, sex, and US region using logistic regression, with 95% CIs shown with error bars. Definitions of each outcome are shown in Study Outcomes in the Methods section. The median annual numbers of adults included in the study by race and ethnicity were 1301 (IQR, 911-1815) non-Hispanic Asian, 4355 (IQR, 3843-4589) non-Hispanic Black, 5325 (IQR, 4212-5603) Latino/Hispanic, and 20 290 (IQR, 16 919-20 961) non-Hispanic White



Conclusion: In a serial cross-sectional survey study of US adults from 1999 to 2018, racial and ethnic differences in self-reported health status, access, and affordability improved in some subgroups, but largely persisted.

JAMA. 2021;326(7):637-648. doi:10.1001/jama.2021.9907

Alvin's provocative idea

- Andrew Yang, former Democratic candidate for president
- In his NH stump speech, Yang warned of the societal and economic changes automation would continue to bring to the United States. He proposed countering it by implementing universal basic income in the form of a [$1,000-a-month "freedom dividend" for U.S. citizens](#).

- Provide all patients, with 2 or more chronic diseases, a medical credit card with up to $1,000 per month to cover any medically related expense
  - Co-pays
  - Prescriptions (insulin, DMARDs,)
  - Eyeglasses
  - Hearing aids
  - Assistive devices
  - Transportation to clinics (Uber model)
  - Telemedicine visits

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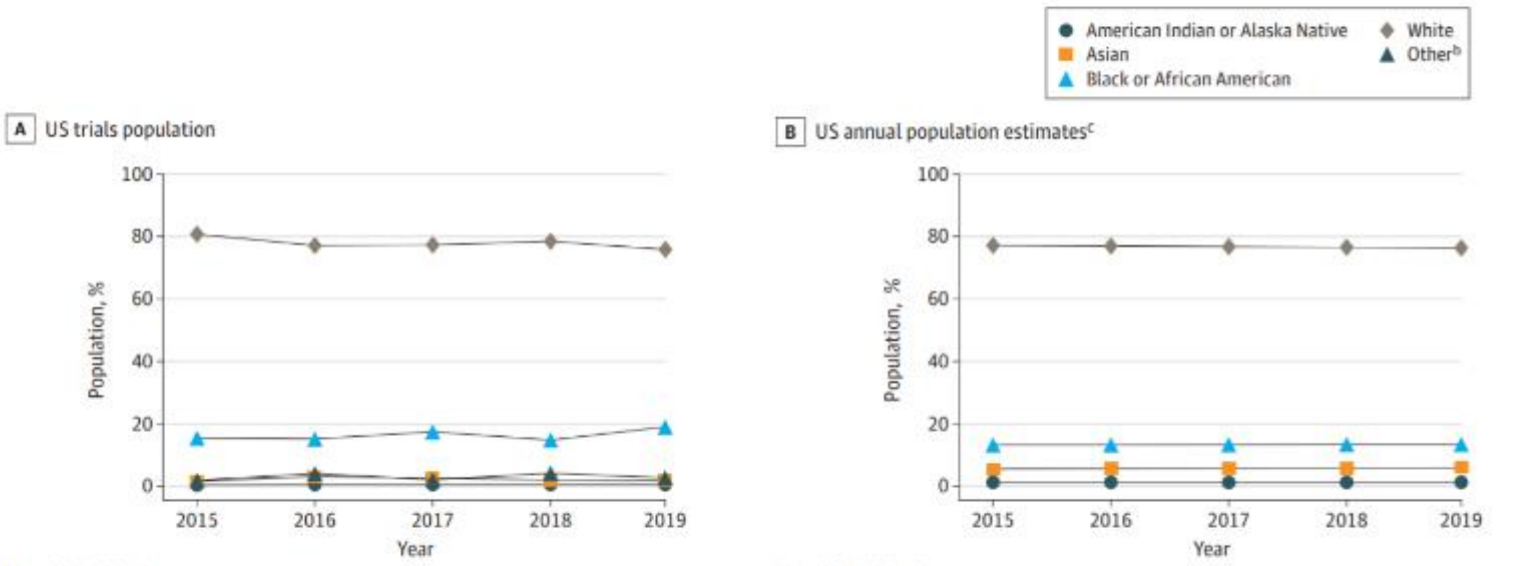
Racial and Ethnic Representation in US Clinical Trials of New Drugs and Biologics, 2015-2019

- 517 trials with 102,596 pts from US sites
- Whites 76-81%
  - (Census 76.3%)
- Blacks 15-19%
  - (Census 13.4%)
- Asians 2-3%
  - (Census 5.9%)
- The mean and yearly participation rates were at or above the US Census level fo Blacks but not for other minority groups

Figure 1. Participants in Pivotal Trials Compared With Racial Breakdown of the US Population by Year[a]



A

No. of individuals	2015	2016	2017	2018	2019
American Indian or Alaska Native	118	70	118	119	106
Asian	484	373	519	427	336
Black or African American	4728	1812	3533	3112	3548
White	24762	9233	15695	16498	14122
Other[b]	578	489	432	874	510

B

No. of individuals	2015	2016	2017	2018	2019
American Indian or Alaska Native	4004358	4054740	4101605	4145811	4188092
Asian	17752744	18279949	18764237	19134105	19504862
Black or African American	42532491	42970183	43374142	43732024	44075086
White	247382690	248413058	249270773	249961025	250522190

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[a] Per the US Food and Drug Administration (FDA) report *Collection, Analysis, and Availability of Demographic Subgroup Data for FDA-Approved Medical Products, August 2013*, the FDA defines pivotal clinical trials as clinical investigations designed to collect definitive evidence of the safety and effectiveness of a medical product for a specified intended use (https://www.fda.gov/files/about%20fda/published/Collection-Analysis-and-Availability-of-Demographic-Subgroup-Data-for-FDA-Approved-Medical-Products.pdf).

[b] Due to small percentages, the "other" category combines Native Hawaiian or Other Pacific Islander, unknown/unreported/missing, other race, and multiracial.

[c] The percentages of the categories Native Hawaiian or Other Pacific Islander and 2 or more races are not presented in the graph. However, absolute values from the US Census population estimates are included in calculating percentages for all other races.

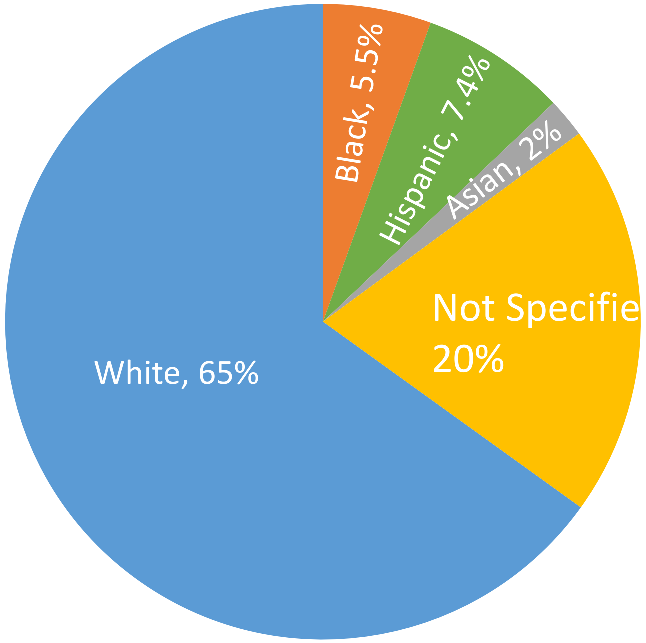
JAMA 2021;326:2201

AdvocateAuroraHealth

Psoriatic Arthritis Clinical Trials Lack Racial/Ethnic Diversity

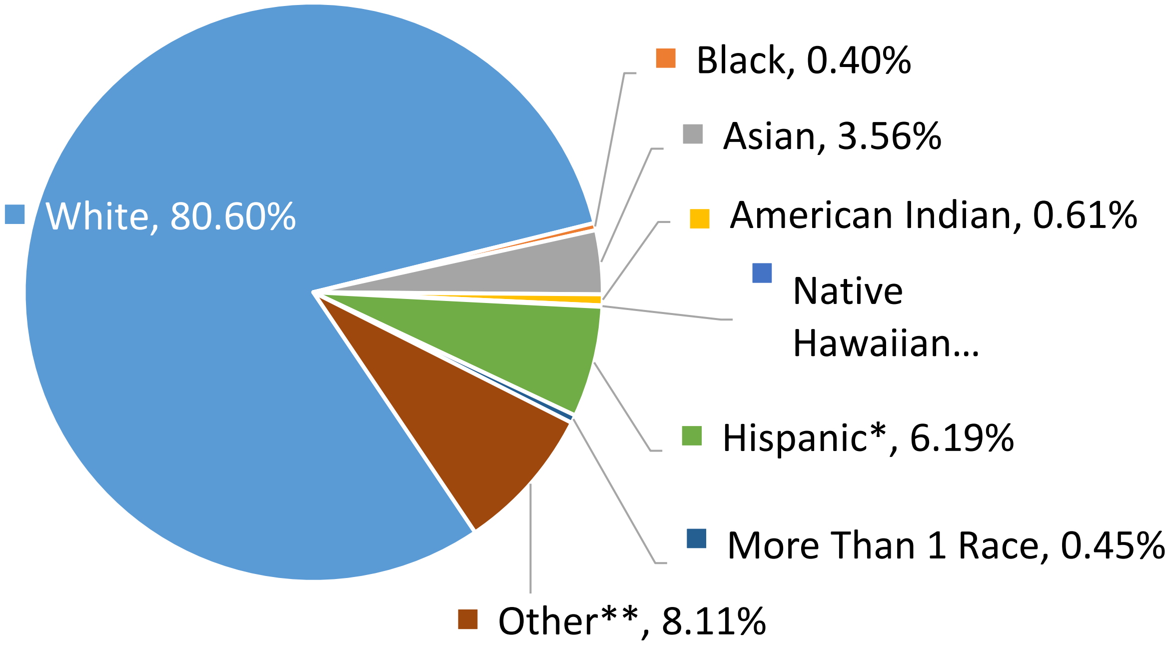
Psoriatic Arthritis Representation by Race/Ethnicity

Descriptive, Retrospective, Cross-Sectional US Claims Database Analysis for 2019 (N = 37,150)[a]



Psoriatic Arthritis Clinical Trial Enrollment by Race/Ethnicity

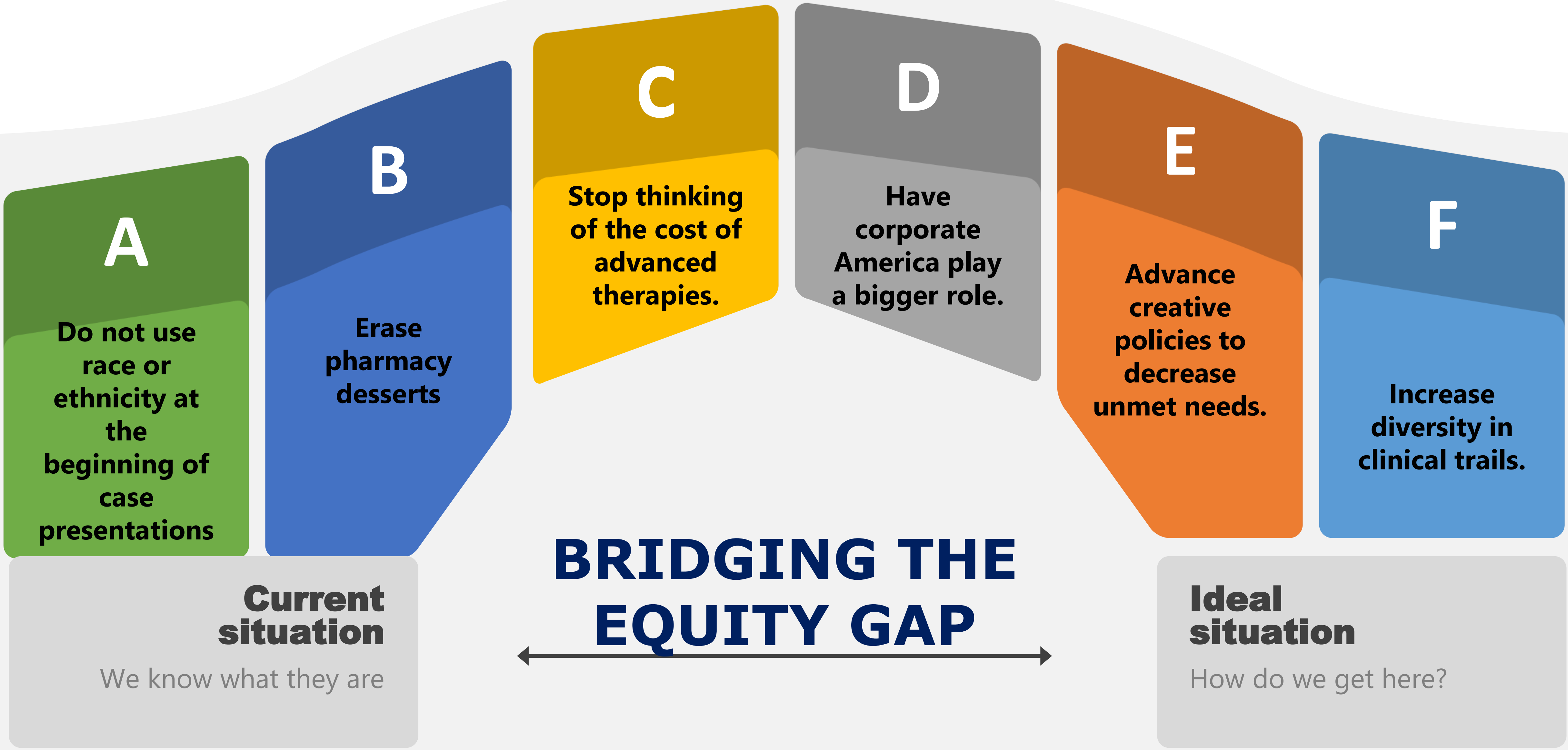
Literature Search (September 2020 – April 2021) of Race/Ethnicity Data Reported in Phase 3 Trials Evaluating Treatment[b] of PsA[c]



[a] Utilizing the Medicaid Multi-State Segment of the IBM® MarketScan® Commercial Claims and Encounters Supplemental Database and Optum Insight Clinformatics® Data Mart Database;

[b] Treatments include adalimumab, certolizumab, etanercept, guselkumab, ixekizumab, secukinumab, tofacitinib; [c] Using PubMed and US NLM ClinicalTrials.gov Databases; The US NLM search terms included 'PsA' with filters applied for 'completed' status, 'adult (18-64)' age, and 'phase 3' study phase; All human, completed phase III clinical trials in English were included; *Hispanic ethnicity defined as a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race; **Other includes unknown or not reported; NLM = National Library of Medicine

Ogdie A, et al. *Rheumatol Ther.* 2021;8:1725-1739; Shwe S, et al. *J Am Acad Dermatol.* 2021;S0190-9622(21)02381-1. DOI: https:// doi.org/10.1016/j.jaad.2021.08.038.



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CONCLUSIONS

- Many disparities in the care of patients with rheumatic diseases are due to overall education (patients and providers) and access to care.
- Efforts to account for costs (visits and medications) do help to narrow the gaps.
- A treat-to-target approach tied to reimbursement may be the proverbial carrot
- All aspects of society can play a role in paving the road to equity.