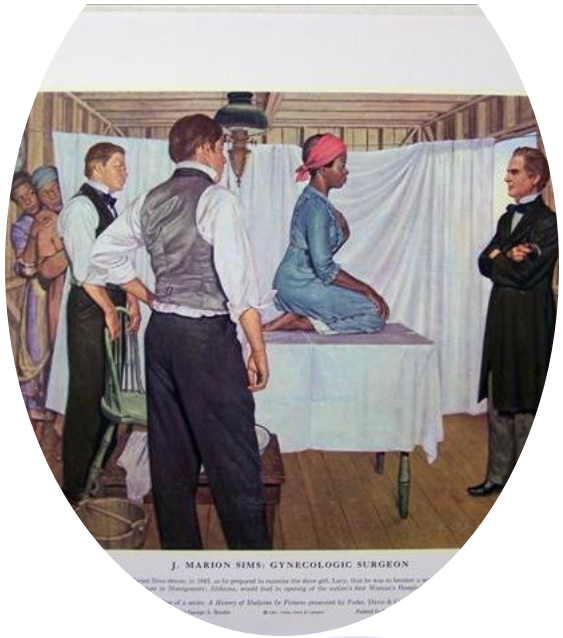
Ending the Misuse of Race in Biomedical Research: Basics & Barriers



Dorothy Roberts

George A. Weiss University Professor of

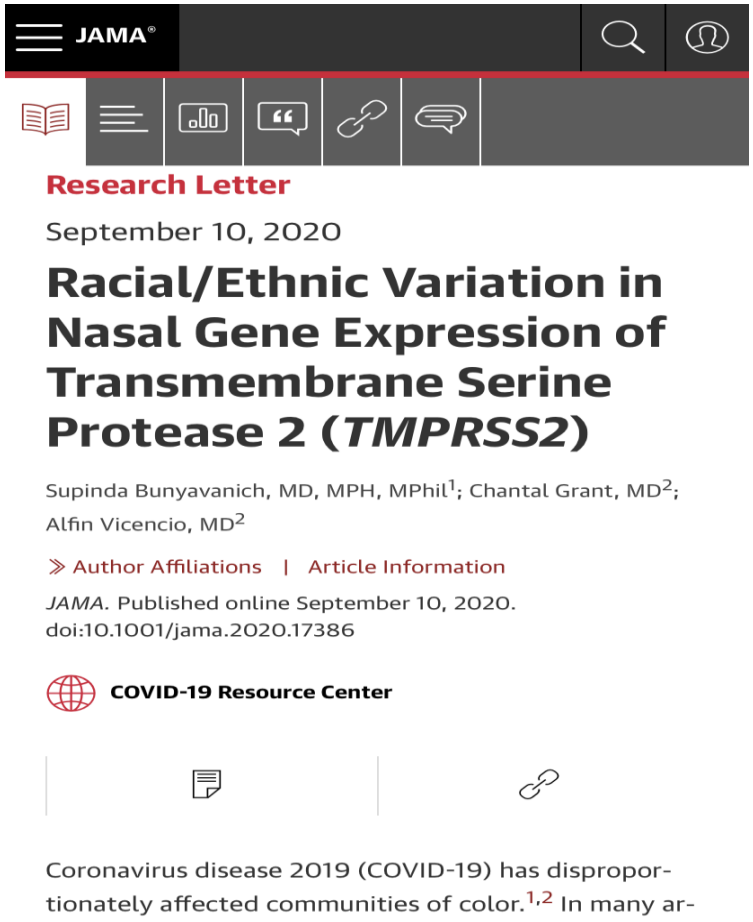
Law & Sociology

Director, Penn Program on Race, Science & Society

University of Pennsylvania

Continuing controversies

- "One hypothesis is that there may be some unknown or unmeasured genetic or biological factors that increase the severity of this illness for African Americans." Health Affairs, May 21, 2020
- "The possibility that genetic or other biological factors may predispose individuals to more severe disease and higher mortality related to COVID-19 is an empirical question that needs to be addressed." JAMA, May 11, 2020
- Accumulating evidence suggests that G6PD deficiency may increase viral replication and susceptibility to viral infections due to its cellular redox state." Current Problems in Cardiology, 2020



JAMA®

Research Letter

September 10, 2020

Racial/Ethnic Variation in Nasal Gene Expression of Transmembrane Serine Protease 2 (*TMPRSS2*)

Supinda Bunyavanich, MD, MPH, MPhil[1]; Chantal Grant, MD[2]; Alfin Vicencio, MD[2]

» Author Affiliations | Article Information

JAMA. Published online September 10, 2020. doi:10.1001/jama.2020.17386

COVID-19 Resource Center

Coronavirus disease 2019 (COVID-19) has disproportionately affected communities of color.[1,2] In many ar-

PUBLIC HEALTH

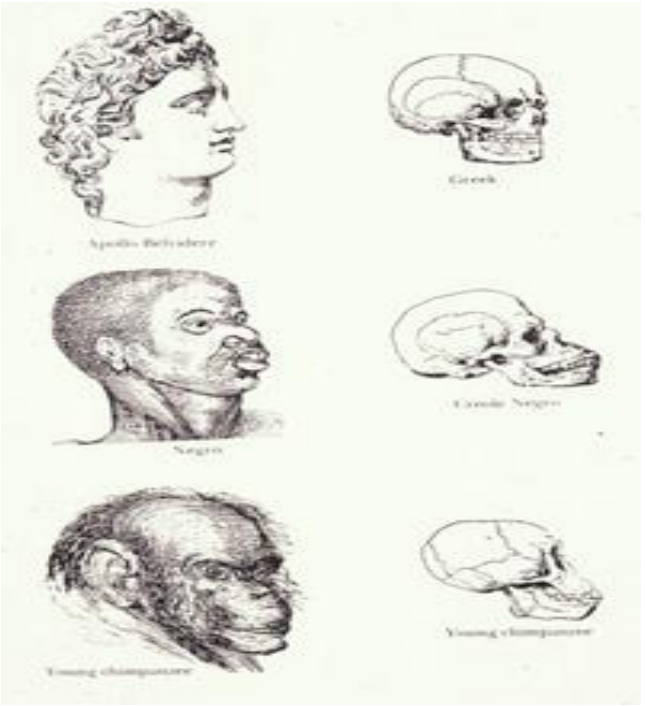
Why Racism, Not Race, Is a Risk Factor for Dying of COVID-19

Public health specialist and physician Camara Phyllis Jones talks about ways that jobs, communities and health care leave Black Americans more exposed and less protected

By Claudia Wallis on June 12, 2020

"Race doesn't put you at higher risk. Racism puts you at higher risk."

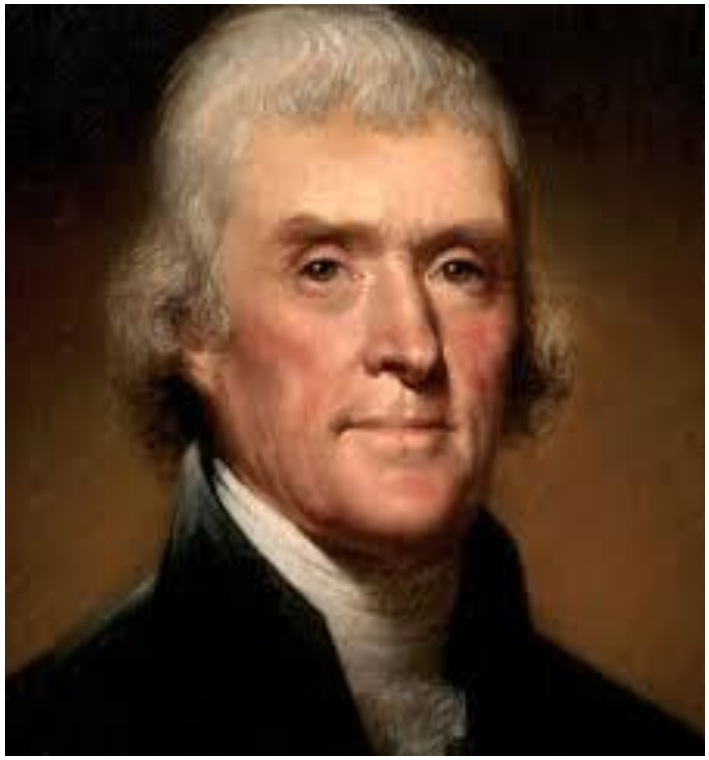
BASICS:
Race was INVENTED to support racism



Thomas Jefferson, Racial Scientist

"The real distinctions nature has made" …

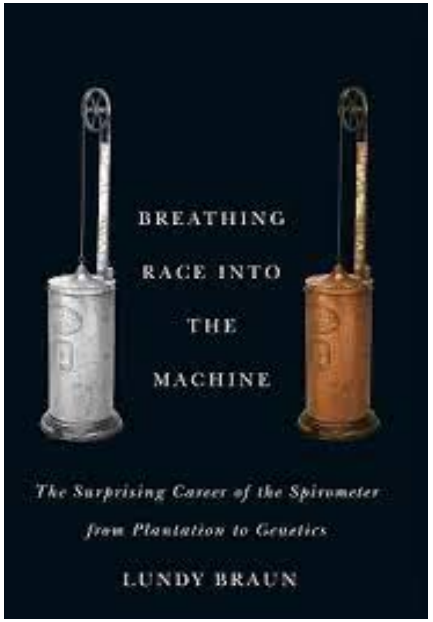
"a powerful obstacle to the emancipation of these people."



Samuel Cartwright
The Biomedical Defense of Slavery

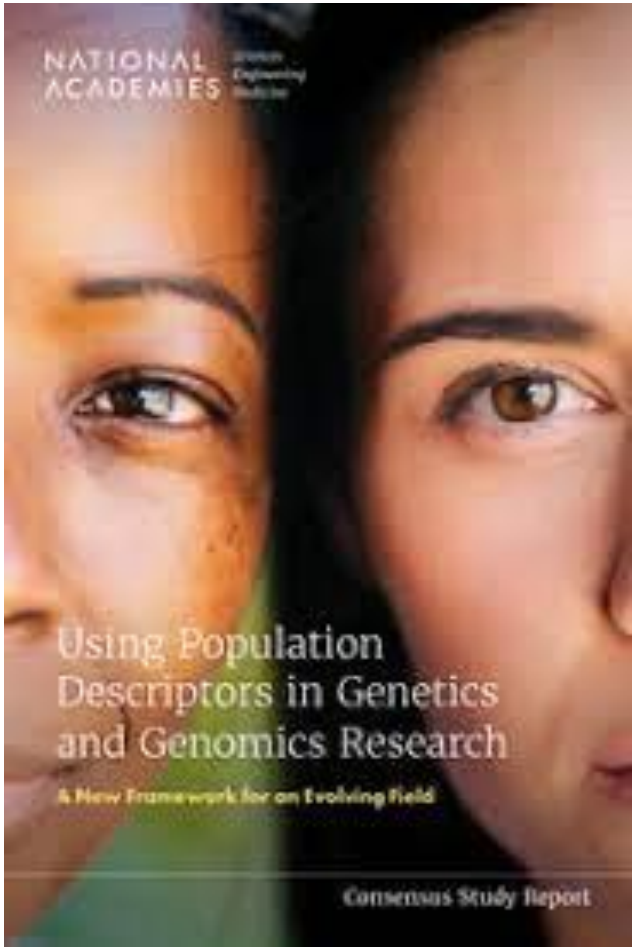
The Report on the Diseases and Peculiarities of the Negro Race (1851)

The racial concept of disease
&
the birth of race correction



- Conclusion 4-1: Race is neither useful nor scientifically valid as a measure of the structure of human genetic variation.

- Recommendation 1: Researchers should not use race as a proxy for human genetic variation.



BASICS:
Race-based diagnostics harm patients

This Issue

Views 18,797 | Citations 80 | Altmetric 453 | Comments 2

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Viewpoint

June 6, 2019

Reconsidering the Consequences of Using Race to Estimate Kidney Function

Nwamaka Denise Eneanya, MD, MPH[1,2]; Wei Yang, PhD[3]; Peter Philip Reese, MD, MSCE[1,3]

Author Affiliations

JAMA. 2019;322(2):113-114. doi:10.1001/jama.2019.5774

HEALTH

Changing the equation: Researchers remove race from a calculator for childbirth

By Katie Palmer · June 3, 2021

Using race to diagnose anemia in pregnancy led to poor birth outcomes for Black patients, study shows

By Sojourner Ahébée · August 21, 2021

A doctor holds a stethoscope on a pregnant person's belly. (VadimGuzhva/Bigstock)

For years, national medical guidelines have defined anemia differently for patients who are Black. Notably, over the years researchers and clinicians have observed significantly lower levels of iron in Black

Contents lists available at ScienceDirect

EClinicalMedicine

journal homepage: www.elsevier.com/locate/eclinm

Evaluating the Impact and Rationale of Race-Specific Estimations of Kidney Function: Estimations from U.S. NHANES, 2015-2018

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ARTICLE INFO

Article history:
Received 23 April 2021
Revised 20 October 2021
Accepted 26 October 2021

ABSTRACT

Background: Standard equations for estimating glomerular filtration rate (eGFR) employ race multipliers, systematically inflating eGFR for Black patients. Such inflation is clinically significant because eGFR thresholds of 60, 30, and 20 ml/min/1.73m^2 guide kidney disease management. Racialized adjustment of eGFR in Black Americans may thereby affect their clinical care. In this study, we analyze and extrapolate

NEWS RELEASE 18-JUL-2022

Race-based spirometry equations may miss emphysema

Embargoed News from Annals of Internal Medicine

Peer-Reviewed Publication

AMERICAN COLLEGE OF PHYSICIANS

Print | Email App

1. Race-based spirometry equations may miss emphysema

Findings suggest race-specific interpretations of spirometry may be normalizing structural racial inequities in respiratory health

False Racial Beliefs=Inequitable Care

A substantial number of white laypeople and medical students and residents hold false beliefs about biological differences between blacks and whites … these beliefs predict racial bias in pain perception and treatment recommendation accuracy.

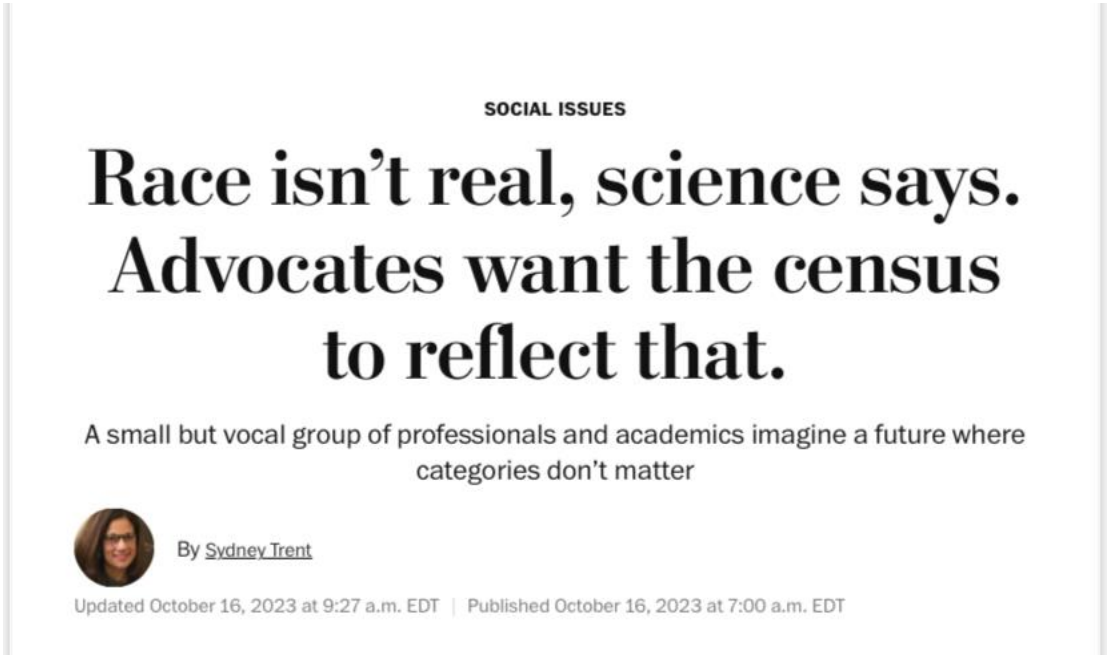
Hoffman, Trawalter, Axt & Oliver, "Racial Bias in Pain Assessment…," *PNAS*, April 4, 2016

BARRIERS:
But we aren't racist"

New York Times, Oct. 18-19, 2018

Geneticists Criticize Use of Science by White Nationalists to Justify 'Racial Purity'

BARRIERS:
Replacing race with colorblindness



SOCIAL ISSUES

Race isn't real, science says. Advocates want the census to reflect that.

A small but vocal group of professionals and academics imagine a future where categories don't matter

By Sydney Trent

Updated October 16, 2023 at 9:27 a.m. EDT | Published October 16, 2023 at 7:00 a.m. EDT

BARRIERS:
Ignoring whiteness as the standard

The NEW ENGLAND JOURNAL of MEDICINE

CORRESPONDENCE

Racial Bias in Pulse Oximetry Measurement

December 17, 2020
N Engl J Med 2020; 383:2477-2478
DOI: 10.1056/NEJMc2029240
Metrics

67 Citing Articles
Letters
Related Articles

TO THE EDITOR:

Oxygen is among the most frequently administered medical therapies, with a level that is commonly adjusted according to the reading on a pulse oximeter that measures patients' oxygen saturation. Questions about pulse oximeter technology have been raised, given its original development in populations that were not racially diverse.[1,2] The clinical significance of potential racial bias in pulse oximetry measurement is unknown.

TO THE EDITOR

Throughout 2020, the global movement for racial equality has led many to reflect on their own biases. While combating racism is vital in every setting, we must also preserve nomenclature in science so that it remains a tool to be wielded in the discovery of truth. Phrases such as "racial bias" and "structural racism" are commonplace in the social sciences literature, but they should be used with caution in scientific study. If the findings of the study by Sjoding et al.[1] are correct, they establish a diagnostic inaccuracy, owing to darker skin color, not a racial bias. The term "racial bias" always refers to decisions that are influenced by a person's race. Medical devices such as pulse oximeters are blind to color and cannot exhibit such a bias. It is worrisome that the study findings have been disseminated across social media as proof of "structural racism in health care."[2] Imprudent use of such terms will inevitably further erode the trust of some Black patients and will contribute to, rather than help to remedy, concerns regarding racism in Western medicine.

Thomas Whitehead-Clarke, M.B., B.S.

BARRIERS:
Fear of change

- Task Force on Reassessing the Inclusion of Race in Diagnosing Kidney Diseases,
  Final Report, 9/23/2021

- New eGFR 2021 creatinine equation that estimates kidney function without a race variable.

- Increased use of cystatin C combined with serum (blood) creatinine as a confirmatory assessment of GFR or kidney function.

A 'Race-Free' Approach to Diagnosing Kidney Disease

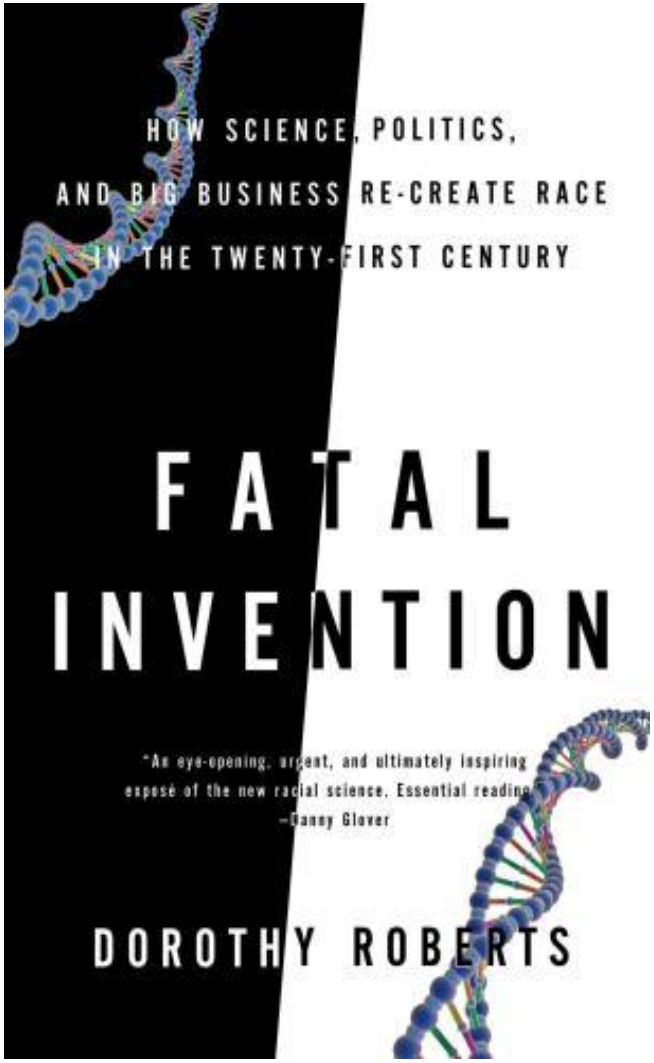
The most common method of assessing the condition may make Black patients seem less ill than they really are, some experts say. A new report calls for scrapping the formula.

Embodying *Racism*

"Race is not a biological category that naturally produces health disparities because of genetic differences.

Race is a political category that has staggering biological consequences because of the impact of social inequality on people's health"

Fatal Invention, 129



A more equal & just society would be healthier for everyone