

Root Cause Analysis: Examining Structural Racism and SDoH to Combat Inequities in Cancer Care

Supported by an educational grant from Bristol Myers Squibb and Merck Sharp & Dohme Corp.

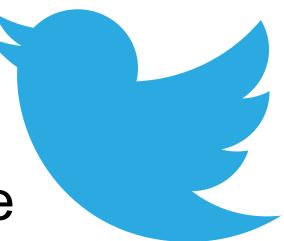


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OUTFITTERS Learning Objective

Analyze causes of disparities in the quality and delivery of cancer care

Definition of Cancer Disparities

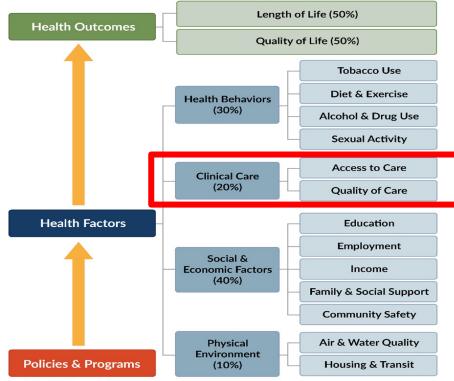
"Adverse differences in cancer measures such as the number of new cases, the number of deaths, cancer-related health complications, survivorship, and quality of life after cancer treatment, screening rates, and stage at diagnosis that exist among certain population groups"

National Cancer Institute (NCI). Cancer Disparities. NCI Website. 2022. https://www.cancer.gov/about-cancer/understanding/disparities. Accessed June 15, 2022.





Clinical Care Has Minor Effect on Outcomes



When someone is sick:

20% of a healthy outcome is determined by clinical care

80% of a healthy outcome is NOT determined by clinical care

American Association of Family Physicians (AAFP). AAFP Website. 2022. https://www.aafp.org/family-physician/patient-care/the-everyone-project/aafp-center-for-diversity-and-health-equity.html. Accessed June 15, 2022.



County Health Rankings model © 2014 UWPHI

Social Determinants of Health

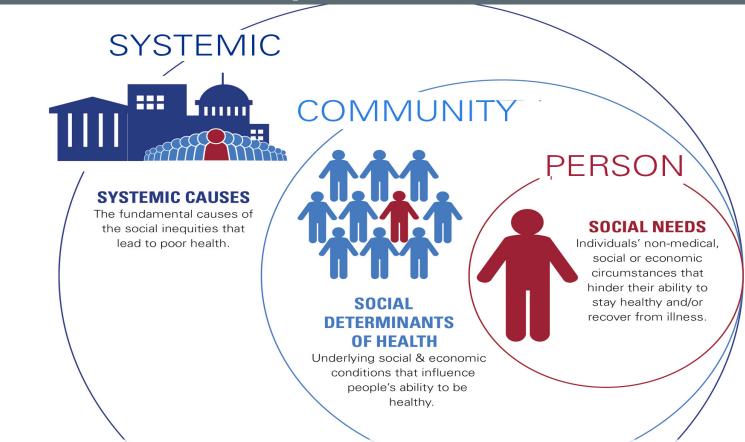
- Our health is determined in part by access to social and economic opportunities
- Resources and supports available in our homes, schools, neighborhoods, and communities
- Conditions in the environments where people are born, live, work, play, worship, and age that affect health, functioning and quality of life



Centers for Disease Control and Prevention (CDC). CDC Website. 2022. https://www.cdc.gov/socialdeterminants/index.htm. Accessed June 15, 2021; American Association for Cancer Research (AACR). AACR Website. 2022. https://cancerprogressreport.aacr.org/disparities/. Published 2022. Accessed June 15, 2022; Venkataramany BS, et al. *Am J Clin Oncol*. 2022;45(6):273-278.



Societal Factors That Influence Health: Framework for Hospitals



American Hospital Association (AHA). AHA Website. 2022. https://www.aha.org/societalfactors. Accessed June 15, 2022.

Multiple Factors Contribute to SDoH

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community and Social Context	Health Care System			
Employment Income Expenses Debt Medical Bills Support	Housing Transportation Safety Parks Playgrounds Walkability Zip Code/	Literacy Language Early Childhood Education Vocational Training Higher Education	Hunger Access to Healthy Options	Social Integration Support Systems Community Engagement Discrimination Stress	Health Coverage Provider Availability Provide Linguistic and Cultural Competency Quality of Care			
Geography Health Outcomes Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations								

Artiga S and Hinton E. KFF Website. 2022. https://www.kff.org/racial-equity-and-health-policy/issue-brief/beyond-health-care-the-role-of-social-determinants-in-promoting-health-and-health-equity/. Accessed June 15, 2022.



Social Determinants of Health That Drive Disparities

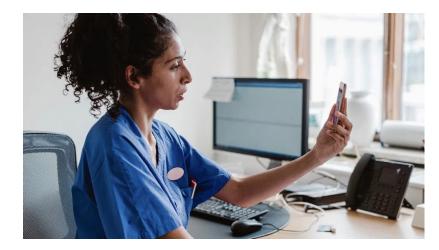
- Socioeconomic and health care access factors
- Lack of health insurance
- <u>Disparities in exposure to risk factors</u>, due largely to underlying social and economic inequities
- Provider and patient <u>communication and interactions</u>, due to unconscious bias
- <u>Discrimination and bias</u> within the health care system, such as inadequate screening and longer time to initial therapy
- Current <u>screening guidelines</u> for some cancers may not account for differences in cancer risk across communities.
- <u>Hereditary risk and genetic determinants</u>

Tong M, et al. KFF Website. 2022. https://www.kff.org/racial-equity-and-health-policy/issue-brief/racial-disparities-in-cancer-outcomes-screening-and-treatment/. Accessed June 15, 2022.



Language Barriers

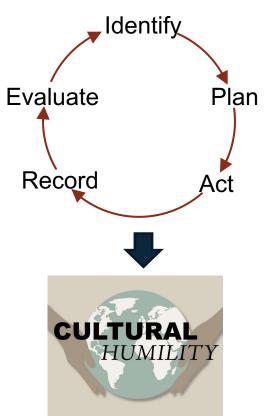
Do physicians recognize "poor compliance" or a "lack of understanding" as a language barrier







Addressing Social Determinants of Health



The free ASCO Social Determinants of Health series was launched in fall 2020 as an ASCO **Education Podcast featuring expert-led** discussions on the social, economic, and culture factors that influence cancer outcomes and risk.



Social Determinants of Health Series

Episode 1: Beginning the Conversation - SDOH and Cancer Care



Social Determinants of Health Podcast Series Episode #6

Svivie Leotin







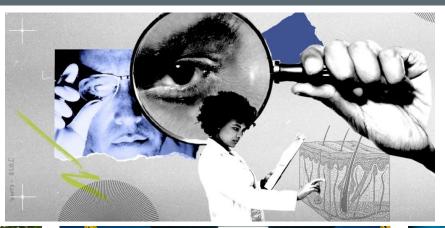
Robert Winn, MD Director, VCU Massey Cancer Center

Randy Vince, MD (Moderator Founder & CEO, Equify Health Fellow, Michigan Medicine



American Society of Clinical Oncology (ASCO). ASCO Website. 2022. https://practice.asco.org/new-asco-educational-seriesfocuses-social-determinants-health-and-their-impact-equity-cancer-care. Accessed June 15, 2022.

Measuring Systemic Racism and Discrimination





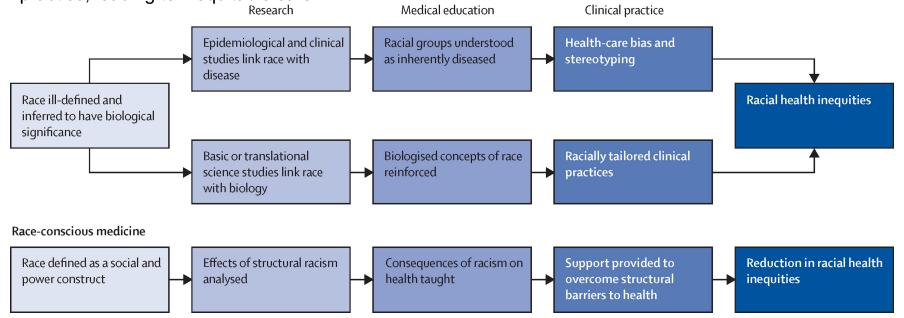






From Race-based to Race-conscious Medicine

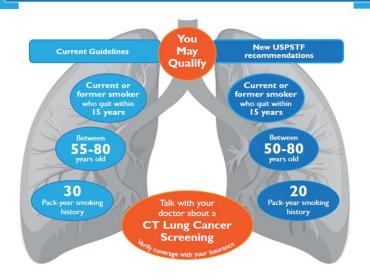
Race-based medicine characterizes race as an essential, biological variable, translates into clinical practice, leading to inequitable care



Race-conscious medicine emphasizes racism as a key determinant of illness and health, encouraging providers to focus only on the most relevant data to mitigate health inequities

Screening Recommendations When Risk is Not the Same

CT Lung Cancer Screening





Potter AL, et al. *Lancet Respir Med*. 2021;9(7):689-691; American College of Gastroenterology (ACG). ACG Website. 2022. https://gi.org/topics/colorectal-cancer/. Accessed June 15, 2022.



Racial Disparity in Time to Lung Cancer Surgery

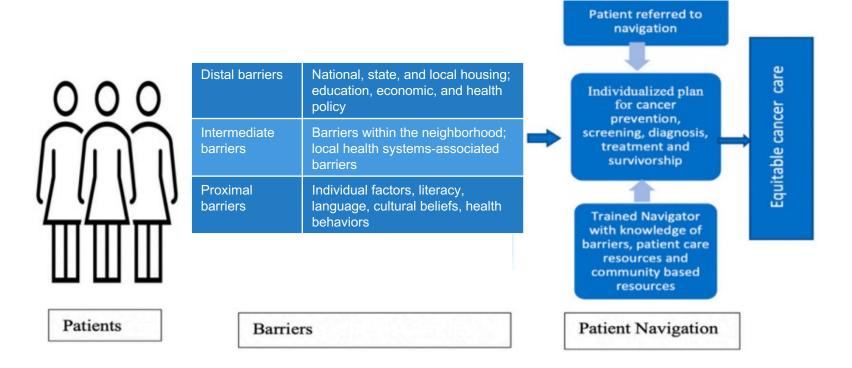
Rates of Timely Lung Cancer Surgery

N = 2,363 patients with stage I and II NSCLC	Retrospective Control Group (P = .29)	Concurrent Control Group (P <.01)	Intervention Group (P = .13)
White Patients	75.0%	73.2%	85.4%
Black Patients	58.7%	64.9%	87.1%

- Secondary analysis of Accountability for Cancer Care through Undoing Racism and Equity, an antiracism prospective pragmatic trial, at five cancer centers.
- The primary outcome was surgery within 8 weeks of diagnosis.
- · The intervention consisted of
 - · Real-time warning system to identify unmet care milestones
 - Race-specific feedback on lung cancer treatment rates
 - Patient navigation



Role of Patient Navigation in Health Equity





Polling Question

How confident are you to offer clinical trial options to all your patients?

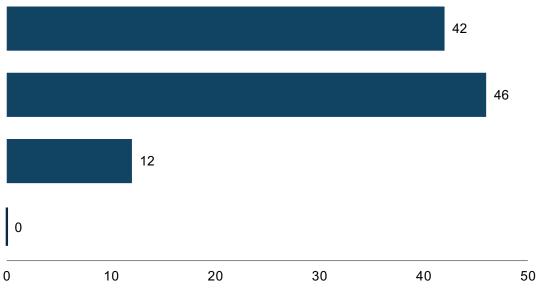
- a. Not confident at all
- b. Somewhat confident
- c. Confident
- d. Extremely confident



Polling Results

How confident are you to offer clinical trial options to all your patients?

- a. Not confident at all
- b. Somewhat confident
- c. Confident
- d. Extremely confident





Clinical Trial Enrollment Based on Ethnicity

WHO ME !? I THOUGHT YOU'D NEVER ASK.

- A patient must find their way to a clinical trial
- Once asked, ethnicity does not impact the rate at which individuals enroll



...the attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities



Polling Question

Why is ethnic diversity important in precision medicine?

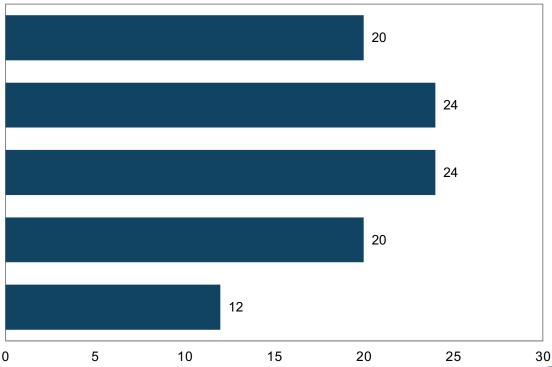
- a. Ethnic diversity in genomic sequencing efforts is important to the generalizability and availability of genomic-based treatments or prevention strategies.
- b. Improved access to precision therapeutics by ethnically diverse groups will lead to better outcomes.
- C. Our understanding of disease processes will be increased by incorporating ethnic diversity.
- d. Analyses of different ethnic populations will lead to lower cancer rates and improved screening rates.
- e. I don't know



Polling Results

Why is ethnic diversity important in precision medicine?

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- Precision medicine promises to transform medical care by creating tailored treatments for each individual patient depending on their specific genetic background.
- To ensure that these new medical advances help to close the gap in cancer disparities, it is critical that sample and data repositories include representation from individuals of diverse racial and ethnic backgrounds.



Importance of Diversity in Precision Medicine

600 Surplus of Samples 500 Lung squamous carcinoma Glioblastoma multiforme Lung adenocarcinoma Renal clear cell carcinoma 400 Ovarian cancer Head and neck squamous cell carcinoma 300 Colon cancer Breast cancer 200 Uterine cancer Prostate cancer 100 0 -100-200 Deficit of Samples -300 -400 -500 -600 -700 -800 -900 White Black Hispanic Native Hawaiian Native American Asian

Number of samples needed to detect a 5% mutational frequency rate

Despite the advances gained from genomic sequencing, **dedicated efforts beyond TCGA are needed to avoid widening the cancer health disparities gap**.



Inclusion of Diverse Participants

- All disparity populations are historically underrepresented in biomedical research.
- Inclusion of minorities in clinical studies is an important and separate domain.
- Inclusion is not to be confused with minority health or health disparities research.
- Social justice, good science, and common sense mandate inclusion (40% US population).



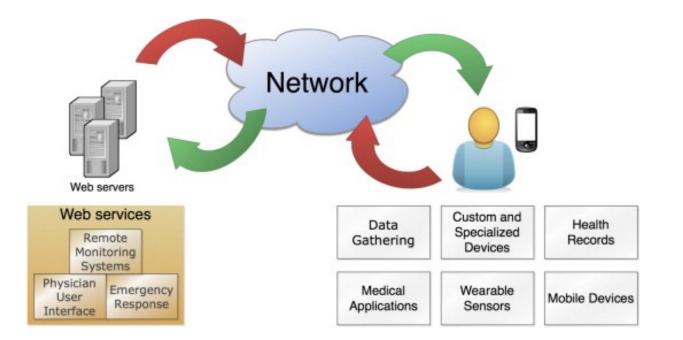
Research Frameworks and Health Care Delivery Models to Overcome Health Care Disparities

		Levels of Influence				
		Individual	Interpersonal	Community	Societal	
Domains of Influence	Biological	Vulnerability Mechanisms	Caregiver-Child Interaction Family Microbiome	Infectious Disease Prevalence Herd Immunity	Sanitation Immunization Pathogen exposure	
	Behavioral	Health Behaviors Coping Strategies	Family Function School/Work Function	Community Function	Welfare Immigration Language	
	Physical Environment	Personal Environment	Household School Work	Community Environment, Resources	Government Education Housing	
	Sociocultural Environment	Sociodemographic Cultural Identify Discrimination	Networks Family/Peer Discrimination	Community Norms Discrimination	Societal Norms Structural Discrimination	
	Healthcare System	Access Congruence	D/P Relationship Collaborative care	Availability Health Services	Quality of Care HC Policies	
Health Outcomes		Individual Health	Family Health	Community Health	Population Health	

National Institute on Minority Health and Health Disparities. https://nimhd.nih.gov/about/overview/research-framework/nimhd-framework.html. Published 2017. Accessed June 25, 2022.

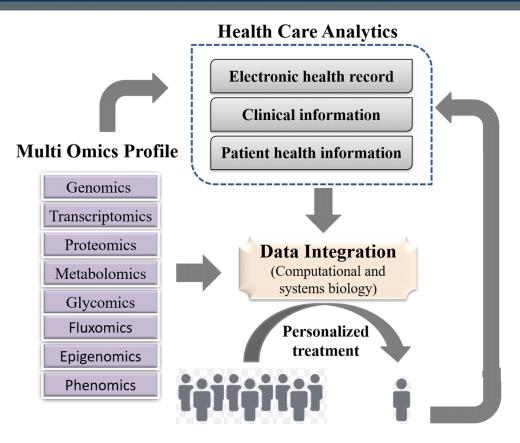


Integrated Models of Health Care Delivery





Emerging Landscape for Equity in Health Care Delivery





Gallo Cantafio ME, et al. High-Throughput. 2018;7(4):33. Olivier M, et al. Int J Mol Sci. 2019;20(19):4781.

Advancing Community Partnerships

- National Outreach Network (NON): 50 community health educators (CHEs) at 38 NCI-Designated Cancer Centers serve as critical links between disparities researchers and ethnically diverse local communities.¹
- Geographic Management of Cancer Health Disparities Program (GMaP): 7 regional networks foster collaboration, resource-sharing, and capacity-building among cancer health disparities researchers, trainees, outreach workers, and organizations.²
- Partnerships to Advance Cancer Health Equity (PACHE) program: 25 partnerships among investigators at institutions that serve communities with cancer health disparities, including communities served by NCI-Designated Cancer Centers.³
- Community Networks Program Centers (CNPC): 25 centers using a community-based participatory research approach to improve health outcomes and reduce cancer health disparities in specific target communities.⁴

https://www.cancer.gov/about-nci/organization/crchd/inp/non.
https://www.cancer.gov/about-nci/organization/crchd/inp/gmap.
https://www.cancer.gov/about-nci/organization/crchd/diversity-training/pache.
Braun KL, et al. Prog Community Health Partnersh. 2015;9 Suppl(0):21-32.



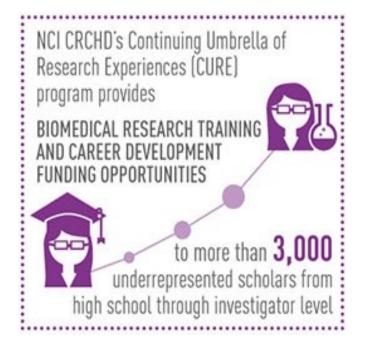
Community Health Workers

- CHW model was developed by the federal government in the 1960s with the goal of reaching people in underserved communities and presenting health and screening information.
 - CHWs are trained public health workers who serve as a bridge between communities, health care systems, and state health departments to improve the quality and cultural competence of care.
- The philosophy of CHW is to train selected community members in specific health topics so that they may then serve as an educational resource to other community members in making the appropriate health decisions.

Centers for Disease Control and Prevention. https://www.cdc.gov/dhdsp/pubs/toolkits/chw-toolkit.htm. Accessed June 25, 2022.



Advancing Workforce Development

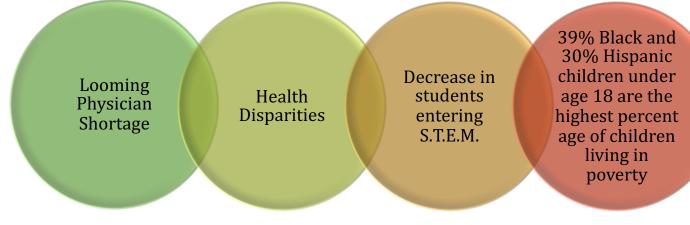


Continuing Umbrella of Research Experiences (CURE) program has provided biomedical research training and career development funding opportunities to more than 3,000 underrepresented scholars from high school through investigator level.

National Cancer Institute (NCI). NCI Website. 2022. https://www.cancer.gov/about-nci/organization/crchd/diversity-training/cure. Accessed June 15, 2022.



The Landscape





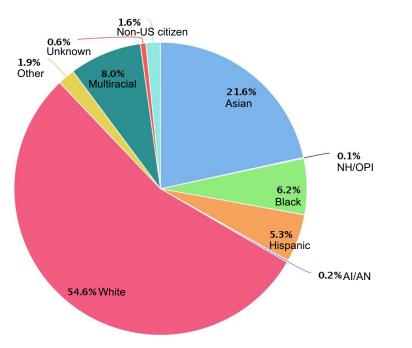


Physician Shortage & Black Male Physicians Shortage

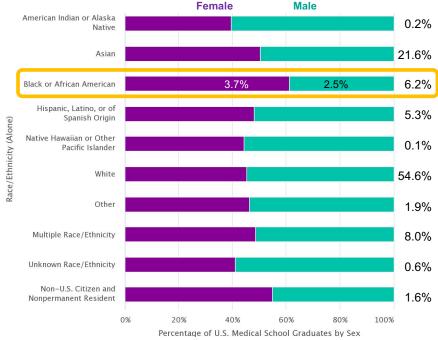


Diversity of Student Population Graduating From Medical Schools, 2018-2019

Percentage of U.S. medical school graduates by race/ethnicity, academic year 2018-2019



Percentage of U.S. medical school graduates by sex, race/ethnicity, academic year 2018-2019



Association of American Medical Colleges. https://www.aamc.org/data-reports/workforce/report/diversity-medicine-facts-and-figures-2019. Accessed June 25, 2022.

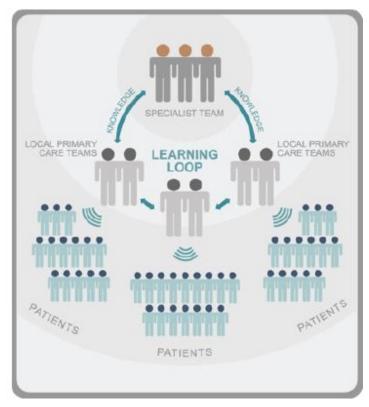
Why Does This Matter in Medicine?

- Ability to serve underserved areas
- Health of the nation
- Lack of diverse health care providers
- Decrease in access
- Social determinants
- Family income
- Health equity crisis
- Physician shortage
- Delivery of culturally competent care



Project ECHO

- ECHO effectively and efficiently disseminates evidence-based strategies to improve cancer outcomes
- ECHO allows clinicians to convene for best practice sharing across health centers, institutions, and other silos
- ECHO is a proven one-to-many intervention





Project ECHO. Project ECHO Website. 2022. https://hsc.unm.edu/echo/. Accessed June 26, 2022.

Minorities in Cancer Research, AACR

Minorities in Cancer Research is a constituency group within American Association for Cancer Research (AACR) that seeks to

- Increase the number, participation, visibility, and recognition of minority scientists in cancer research;
- Develop programs that address the professional needs of minority scientists in cancer research;
- Provide diversity in the field and within the AACR's membership, programs, committees, and leadership;
- Addresses the disparities in cancer incidence and mortality faced by minorities and the medically underserved;
- Advocates for relevant, effective legislation pertaining to science and public policy in consultation with the Science Policy and Legislative Affairs Committee; and
- Assumes other roles, that are deemed necessary or appropriate to MICR's mission.

American Association for Cancer Research. https://www.aacr.org/professionals/membership/constituency-groups/minorities-in-cancer-research/. Accessed June 25, 2022.





Over the past decade, we have made significant progress in...

- How we understand, prevent, and treat cancer
- We have learned cancer heath disparities are influenced by many factors (multilevel influences)
- Shift from a 'one size fits all' approach to a more personalized approach-<u>Precision Medicine</u> (the use of information about an individual's biology, behavior, and social factors) to prevent, diagnose, and treat disease.



Down From the lvory Tower



SMART Goals Specific, Measurable, Attainable, Relevant, Timely

- Talk to your patients about clinical trials
- Consider participating in collaborative community partnerships
- Involve patient navigators and community health workers
- Avoid using race to make inferences about physiological function in clinical practice
- Consider leveraging your cultural standing as health care workers to advocate for antiracist policies



To Ask a Question

Please click on the Ask Question tab and type your question. Please include the faculty member's name if the question is specifically for them.

CME Outfitters

AFTE SHOW

Questions & Answers

To Receive Credit

To receive CME/CE credit for this activity, participants must complete the post-test and evaluation online.

Participants will be able to download and print their certificate immediately upon completion.



Oncology Hub

Free resources and education to educate health care providers and patients on oncology <u>https://www.cmeoutfitters.com/oncology-education-hub/</u>

Diversity and Inclusion Hub

Free resources and education to educate health care providers and patients on health-related inequities https://www.cmeoutfitters.com/diversity-and-inclusion-hub/