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SAN ANTONIO, TX · FEBRUARY 24–27, 2023

Highlighting Disparities in A/I and How to Implement this Awareness into Fellowship Training

Jessica Stern, MD MS
Assistant Professor Allergy and Immunology
Director Diversity, Equity and Inclusion Allergy, Immunology, Rheumatology
University of Rochester School of Medicine and Dentistry

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Learning objectives

- Understand that health care disparities are pervasive in all medical specialties highlighting systemic etiology
- Understand proactive and concerted medical education intervention can help increase knowledge in terms of issues and provide more culturally competent care
- Provide framework for addressing topics in curricula
- Goal is to how to practically implement teaching yourselves and fellows/learners

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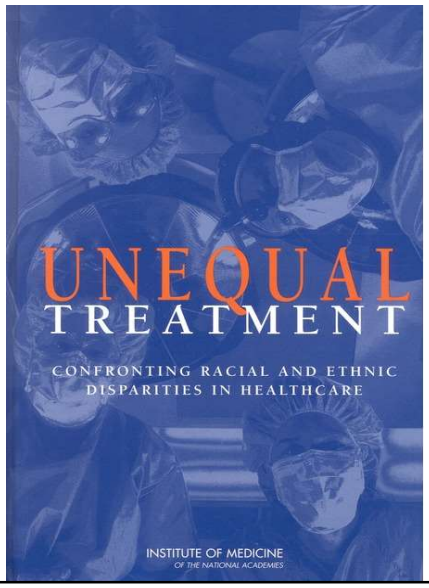
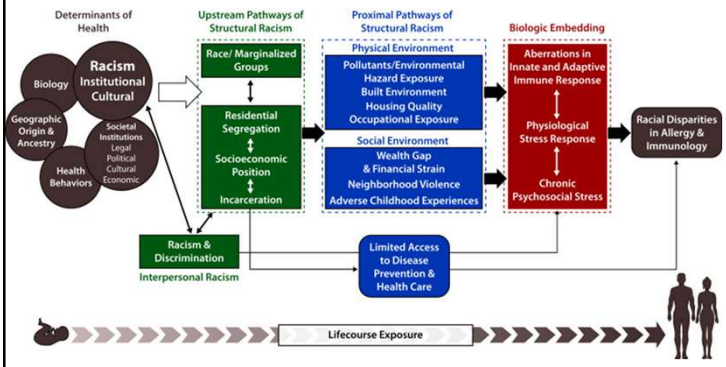
Cause of inequities is systemic



- Patients who are poor and ethnic/ racial minoritized receive unequal care and have worse outcomes
- Health disparities pervasive in every field
- Differences remain after controlling for income and SES factors
- MOST DISPARITIES FROM HEALTH CARE SYSTEM ITSELF

Social Determinants of Health Framework



Racism as a Root Cause Approach: A New Framework

Zea Malawa, MD, MPH,[a] Jenna Gaarde, MPH,[b] Solaire Spellen, MPH[c]

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN®

CHILDREN'S HEALTH ADVOCATES ARE OVERDUE IN ADDRESSING RACISM AS A ROOT CAUSE OF RACIAL HEALTH DISPARITIES

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Institute of Medicine/ National Academy of Medicine Recommendations

- Use evidence based medicine
- Perform continuous quality improvement
- Provide education regarding cause of health disparities/inequities
- Incorporate cross-cultural training into medical curricula
- Continue to create diverse workforce

Mandates for addressing health disparities in graduate medical education

- Because of pervasive nature of health disparities, ACGME through Clinical Learning Environment Review initiative has mandated that any ACGME accredited program must perform the following

Background and Intent: The mission of institutions participating in graduate medical education is to improve the health of the public. Each community has health needs that vary based upon location and demographics. Programs must understand the structural and social determinants of health of the populations they serve and incorporate them in the design and implementation of the program curriculum, with the ultimate goal of addressing these needs and eliminating health disparities.

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Allergy and Immunology Milestones

Version 2 Allergy and Immunology Milestones, ACGME Report Worksheet

Systems-Based Practice 4: Community and Population Health				
Level 1	Level 2	Level 3	Level 4	Level 5
Demonstrates knowledge of population or community health needs and disparities	Identifies specific population or community health needs and inequities for the local population	Accesses local resources to meet the needs of a specific patient population or community	Participates in changing and adapting practice to provide for the needs of specific populations or communities	Leads innovations to advocate for specific populations or communities with health care inequities
☐	☐	☐	☐	☐ ☐ ☐ ☐ ☐
Comments: Not Yet Completed Level 1 ☐				

Performance Gap in Implementation

CLER NATIONAL REPORT OF FINDINGS 2021

Theme 2

In general, clinical learning environments do not appear to engage all their residents and fellows in their organization's efforts to design, evaluate, and improve patient safety and health care quality, including health care disparities.

B12. Percentage of Residents and Fellows Who Reported Receiving Cultural Competency Training Specific to Populations at Risk for Health Care Disparities at Their Clinical Site

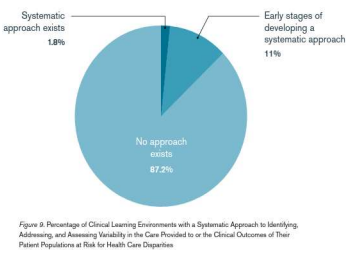
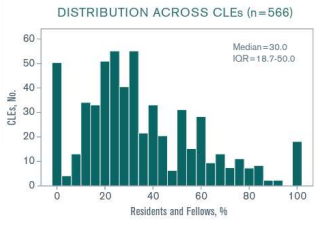
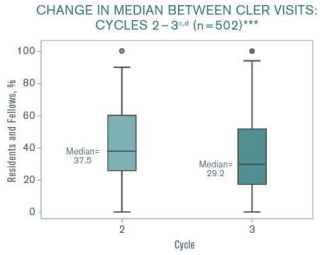


Figure 9. Percentage of Clinical Learning Environments with a Systematic Approach to Identifying, Addressing, and Assessing Variability in the Care Provided to or the Clinical Outcomes of Their Patient Populations at Risk for Health Care Disparities

PERCENT OF TOTAL SURVEYED[a] (n = 11,106) **31.2**





https://www.acgme.org/what-we-do/initiatives/clinical-learning-environment-review-cler/

AAMC
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New and Emerging Areas in Medicine Series

Diversity, Equity, and Inclusion Competencies Across the Learning Continuum

Entering Residency (Recent Medical School Graduate) or New to DEI Journey	Entering Practice (Recent Residency Graduate) or Advancing Along DEI Journey *All prior competencies +*	Faculty Physician Teaching and Leading or Continuing DEI Journey *All prior competencies +*
Eliminating Inequities in Health Care Practices that measurably reduce population-level differences in health outcomes, disease burden, and the distribution or allocation of resources between majority and marginalized groups based on race, ethnicity, sex, sexual orientation, gender identity, intellectual and developmental ability, socioeconomic status, the physical (built) environment, geographic location, and psychosocial-, behavioral-, and health care-related factors		
3a. Describes the value of working in an interprofessional team, including patients, to identify and address social risk factors influencing health (e.g., food security, housing, utilities, transportation)	3b. Works collaboratively with an interprofessional team, including patients, to screen and refer patients for appropriate resources to address social determinants of health	3c. Role models collaborative practices for working with an interprofessional team to address social determinants of health affecting patients and communities
4a. Identifies systems of power, privilege, and oppression and their impacts on health outcomes (e.g., White privilege, racism, sexism, heterosexism, ableism, religious oppression)	4b. Makes collaborative care decisions based on an understanding of how systems of power, privilege, and oppression influence health care policies and patient health outcomes	4c. Teaches how systems of power, privilege, and oppression inform policies and practices and how to engage with systems to disrupt oppressive practices
5a. Describes how stratification (e.g., by race, ethnicity, primary language, socioeconomic status, LGBTQ identification) of quality measures can allow identification of health care disparities[1]	5b. Explores stratified quality improvement (QI) data for their patient population and uses these data to identify health care disparities[1]	5c. Describes how monitoring stratified QI data can help assess the risk of unintended consequences (e.g., widening the disparity gap) and uses stratified QI data to guide and monitor QI interventions[1]
6a. Explains the role of the health care system in identifying and meeting the local needs of the community (e.g., the role of the community health needs assessment or the community health improvement plan)	6b. Collaborates with a diverse interprofessional team within their system and with community members to meet identified community health needs	6c. Leads, formulates, and/or participates in interprofessional partnerships designed to improve community health needs
Practicing Anti-racism and Critical Consciousness in Health Care Educational and clinical practices that seek to revise and correct local, state, and national policies; institutional practices; and cultural misrepresentations that enable and perpetuate racial bias and race-based health care inequities		
7a. Describes past and current examples of racism and oppression (internalized, interpersonal, institutional, and structural) and their impact on trust, health, and health care	7b. Engages with the health care team and patients to identify the impacts of racism and oppression and challenges these behaviors and practices in the local setting	7c. Role models anti-racism in medicine and teaching, including strategies grounded in critical understanding of unjust systems of oppression
8a. Articulates race as a social construct that is a cause of health and health care inequities, not a risk factor for disease	8b. Identifies and corrects misuse of clinical tools and practices that substantiate race-based medicine	8c. Supports and participates in system-level solutions to end racist practices in education and clinical delivery that substantiate race-based medicine
9a. Describes the impact of various systems of oppression on health and health care (e.g., colonization, White supremacy, acculturation, assimilation)	9b. Collaborates to identify and act on system-level strategies to reduce the effects of various systems of oppression on health and health care	9c. Teaches and examines system-level strategies to remedy the impact of systems of oppression on health and health care
Advocating for Equity in Health and Health Care Practices that influence decision-makers and other vested groups and individuals to support or implement system-level policies and practices that contribute to realizing health equity		
10a. Describes public policy that promotes social justice and addresses social determinants of health	10b. Promotes social justice and engages in efforts to eliminate health care disparities	10c. Leads or participates in organizational and public policy approaches to promote social justice, eliminate health care disparities, and address social determinants of health

Overview of competencies

1. **Residents/fellows and faculty members receive education on identifying and reducing health care disparities relevant to the patient population served by the clinical site**
2. **Residents/fellows and faculty members receive training in cultural competency relevant to the patient population served by the clinical site**
3. **Residents/fellows and faculty members know the clinical site's priorities for addressing health care disparities**
4. **Resident/fellows are engaged in QI activities addressing health care disparities for vulnerable populations served by the clinical site**

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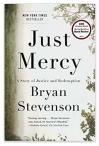
Get Proximate

" When people get proximate to the problems and the things they care most deeply about, not only does it help them do better work, and be better problem solvers - it changes them…We all have to get closer to the problems that burden us. "

- Bryan Stevenson, JD



SHARE SGIM Forum
SEPTEMBER 2020 V43, NO.9

COMMITTEE UPDATE: PART I

BECOMING ANTI-RACIST IN MEDICAL EDUCATION: EMBRACING DISCOMFORT, ACKNOWLEDGING CULPABILITY, MOVING TOWARD CHANGE

Eloho Ufomata, MD, MS; Aditi Puri, MD, MS; Rani Nandiwada, MD, MS;
Carla Spagnoletti, MD, MS; Rachel Bonnema, MD, MS

American Academy of Allergy Asthma & Immunology
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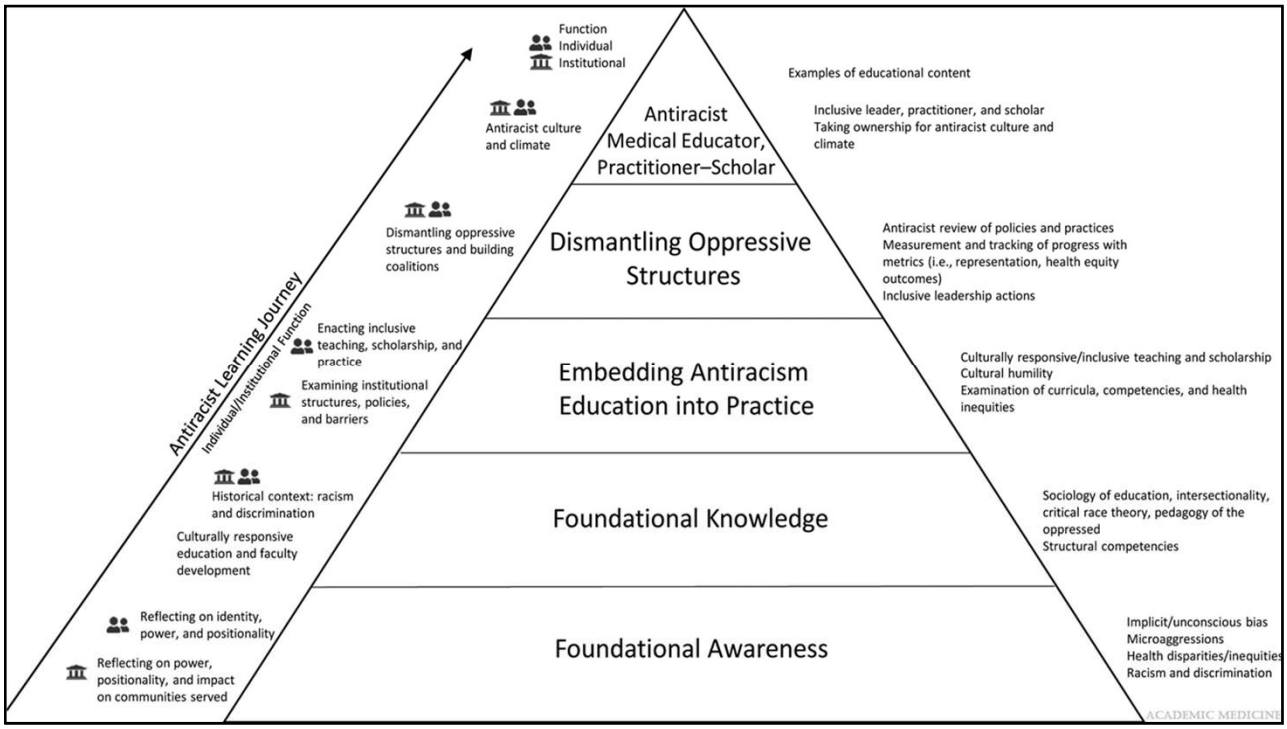
Antiracist pedagogy

- An **intentional** and **strategic** organizing effort in which:
- Incorporating anti-racist approaches into our teaching
- Apply anti-racist values into our various spheres of influence (didactics/clinical care)

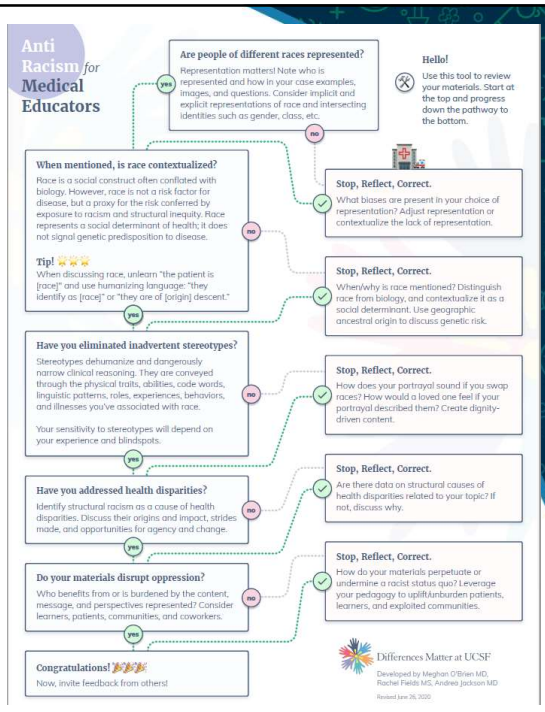


Anti-Racism and Race Literacy: A Primer and Toolkit for Medical Educators

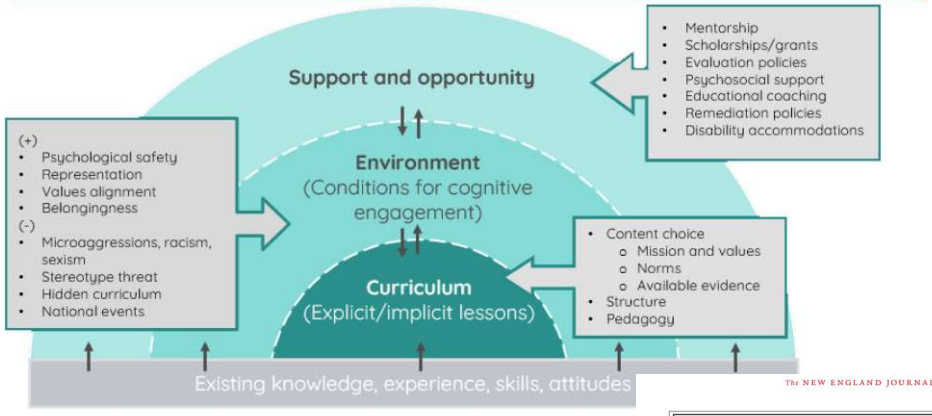
A living and iterative resource by
Meghan O'Brien, MD, MBE, Rachel Fields, MD, MS, and Andrea Jackson, MD, MAS,
with support from UCSF Differences Matter Working Group 3

Revised June 2022
Next revision anticipated Jan 2023

- **Step 1: Prepare to talk about racism and race**
- **Step 2: Definitions and Frameworks**
- **Step 3: Understanding race in the historical context of health care and medicine**
- **Step 4. Implement anti-racism in medical education**



Mechanisms through which racism operates in medical education



The NEW ENGLAND JOURNAL of MEDICINE

MEDICINE AND SOCIETY

Debra Malina, Ph.D., *Editor*

Misrepresenting Race — The Role of Medical Schools in Propagating Physician Bias

Christina Amutah, B.A.,* Kaliya Greenidge,* Adjoa Mante, A.B.,* Michelle Munyikwa, Ph.D.,* Sanjna L. Surya, B.A.,* Eve Higginbotham, M.D., David S. Jones, M.D., Ph.D., Risa Lavizzo-Mourey, M.D., M.B.A., Dorothy Roberts, J.D., Jennifer Tsai, M.D., M.Ed., and Jaya Aysola, M.D., D.T.M.H., M.P.H.

Going Public

Levels of Racism: A Theoretic Framework and a Gardener's Tale

Camara Phyllis Jones, MD, MPH, PhD

PEDIATRICS PERSPECTIVES

An Antiracist Framework for Racial and Ethnic Health Disparities Research

Elizabeth C. Matsui, MD, MHS,[a] Tamara T. Perry, MD,[b] Adewole S. Adamson, MD, MPP[c]

History of Racism in U.S. Health Care

Root Causes of Today's Hierarchy and Systems of Power

Learning Objectives

1. Explain how past historical practices have fueled current structural inequities in health care
2. Describe the role health care professionals have in advancing equity
3. Identify opportunities to advance equity in medicine through individual, institutional, and structural solutions

AMA Center for Health Equity

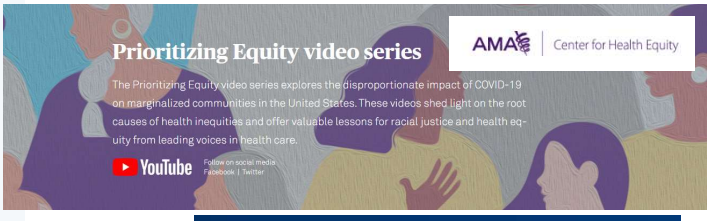
Activity Information and Disclosures

Published Online: February 7, 2023

National Health Equity Grand Rounds 1 hr 30 min

Harriet Washington, MA; David Ansell, MD, MPH; Rupa Marya, MD; et al

Developed in collaboration with



MEDICINE AND SOCIETY

Debra Malina, Ph.D., *Editor*

How Structural Racism Works — Racist Policies as a Root Cause of U.S. Racial Health Inequities

Zinzi D. Bailey, Sc.D., M.S.P.H., Justin M. Feldman, Sc.D., and Mary T. Bassett, M.D., M.P.H.

Health Equity Definitions

Culture of Health: a culture in which good health and well-being flourish across geographic, demographic, and social sectors; fostering healthy, equitable communities guides public and private decision-making; and everyone has the opportunity to make choices that lead to healthy lifestyles

Health Disparities: differences that exist among specific population groups in the U.S. in their opportunities to reach their full health potential

Health Equity: the state in which everyone has the opportunity to attain full health potential and no one is disadvantaged from achieving this potential because of social position or any other socially defined circumstance

Structural Racism: the complex structures and systems by which racism is developed, maintained, and protected

The Culture of Health Program recognizes these terms reflect current understanding at the time but should remain dynamic based on further evidence and learnings, including use by community and grassroots organizations leading the way in these conversations. We do not intend for our language choices to be exclusionary and aim to be inclusive of the experiences of Black, Indigenous, and people of color - including the Latinx/Latino/Hispanic communities and Asian Americans and Pacific Islanders (AAPI) - and everyone affected by inequity in the U.S., while acknowledging and addressing structural racism and unequal allocation of power and resources as root causes of health inequity.

TABLE I. Glossary of terms

Term	Definition
Access to care	The timely use of personal health services to achieve the best health outcomes
Antiracism	Encompasses a range of ideas and political actions that are meant to counter racial prejudice, systemic racism, and the oppression of specific racial groups
Cultural competence	Ability to understand and interact effectively with people from other cultures
Cultural humility	Process of reflection and lifelong inquiry, involves self-awareness of personal and cultural biases as well as awareness, and sensitivity to significant cultural issues of others
Equality	The existence of tools or programs that are distributed evenly in any measurable aspects of health of individuals or groups, usually based on specific attributes such as race and income
Equity	Achieved when every person has the opportunity to "attain his or her full health potential" and no one is disadvantaged from achieving this potential because of social position or other socially determined circumstances
Health disparity	Differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups
Health care disparity	Typically refers to differences between groups in health insurance coverage, access to and use of care, and quality of care
Implicit bias	The phenomenon that perceptions, attitudes, and stereotypes can operate before conscious intention or endorsement
Race concordance	When the race of a patient matches the race of his or her physician and discordance occurs when races do not match
Segregation	The systematic separation of people into racial or other ethnic groups in daily life
Social determinants of health	Conditions or circumstances in which people are born, grow, live, work, and age
Systemic racism	A form of racism that is embedded in the laws and regulations of a society or an organization that manifests as discrimination in areas such as criminal justice, employment, housing, health care, education, and political representation

Perry et al 2022

Disparities Reflect & Contribute to the Impact of Structural Racism on Health at the *Systems Level*

Social Determinants of Health

Social Determinants of Health
Copyright-free
Healthy People 2030

Citation: Healthy People 2030, U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved September 1, 2022, from https://health.gov/healthypeople/objectives-and-data/social-determinants-health

National Institute on Minority Health and Health Disparities Research Framework

		Levels of Influence*			
		Individual	Interpersonal	Community	Societal
Domains of Influence (Over the Lifecourse)	Biological	Biological Vulnerability and Mechanisms	Caregiver–Child Interaction Family Microbiome	Community Illness Exposure Herd Immunity	Sanitation Immunization Pathogen Exposure
	Behavioral	Health Behaviors Coping Strategies	Family Functioning School/Work Functioning	Community Functioning	Policies and Laws
	Physical/Built Environment	Personal Environment	Household Environment School/Work Environment	Community Environment Community Resources	Societal Structure
	Sociocultural Environment	Sociodemographics Limited English Cultural Identity Response to Discrimination	Social Networks Family/Peer Norms Interpersonal Discrimination	Community Norms Local Structural Discrimination	Social Norms Societal Structural Discrimination
	Health Care System	Insurance Coverage Health Literacy Treatment Preferences	Patient–Clinician Relationship Medical Decision-Making	Availability of Services Safety Net Services	Quality of Care Health Care Policies
Health Outcomes		Individual Health	Family/ Organizational Health	Community Health	Population Health

National Institute on Minority Health and Health Disparities, 2018
*Health Disparity Populations: Race/Ethnicity, Low SES, Rural, Sexual and Gender Minority
Other Fundamental Characteristics: Sex and Gender, Disability, Geographic Region

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American Academy of Allergy Asthma & Immunology

The Journal of Allergy and Clinical Immunology: In Practice

Diversity, Equity, and Inclusion Initiatives from the JACI: In Practice

Check for updates

Health disparities in allergic and immunologic conditions in racial and ethnic underserved populations: A Work Group Report of the AAAAI Committee on the Underserved

Carla M. Davis, MD, FAAAAI,[a,b] Andrea J. Apter, MD, MA, MSc, FAAAAI,[c] Adrian Casillas, MD, FAAAAI,[d] Michael B. Foggs, MD, FAAAAI,[e] Margee Louisias, MD,[f] Elsie C. Morris, MD,[g] Anil Nanda, MD, FAAAAI,[h,i,j] Michael R. Nelson, MD, PhD, FAAAAI,[k] Princess U. Ogbogu, MD, FAAAAI,[l] Cheryl Lynn Walker-McGill, MD, MBA, FAAAAI,[m,n] Julie Wang, MD, FAAAAI,[o] and Tamara T. Perry, MD[p,q]

Houston, El Paso, Lewisville, Flower Mound, and Dallas, Tex; Philadelphia, Pa; Chicago, Ill; Boston, Mass; Tucker, Ga; Bethesda, Md: Cleveland Ohio; Charlotte, NC; New York, NY; and Little Rock, Ark

Theme Editorial

Reducing Health Disparities in Allergy Immunology: The Time Is Now

Carla M. Davis, MD[a], and Julie Wang, MD[b] *Houston, Texas; and New York, NY*

Rostrum

The Role of Physician Advocacy in Achieving Health Equity: Where Is the Allergist-Immunologist?

Margee Louisias, MD, MPH[a,b,d], Roselyn Hicks, MD[d,e], Samantha Jacobs, MD[f], and Michael B. Foggs, MD[g] *Boston, Mass; Atlanta, Ga; New York, NY; and Chicago, Ill*

Editorial

Shared Decision-Making in Addressing Asthma Health Disparities

Akilah A. Jefferson, MD, MSc[a,b] *Little Rock, Ark*

American Academy of Allergy Asthma & Immunology

Environmental justice and allergic disease: A Work Group Report of the AAAAI Environmental Exposure and Respiratory Health Committee and the *Diversity, Equity and Inclusion Committee*

Allison J. Burbank, MD,[a] Michelle L. Hernandez, MD, FAAAAI,[a] Akilah Jefferson, MD, MSc,[b,c] Tamara T. Perry, MD, FAAAAI,[b,c] Wanda Phipatanakul, MD, MS, FAAAAI,[d] Jill Poole, MD, FAAAAI,[e] and Elizabeth C. Matsui, MD, MHS, FAAAAI[f] *Chapel Hill, NC; Little Rock, Ark; Boston, Mass; Omaha, Neb; and Austin, Tex*

Clinical Commentary Review

Elevating Health Disparities Education Among Trainees and Physicians

Tamara T. Perry, MD[a], Minal R. Patel, PhD, MPH[b], and James T. Li, MD, PhD[c] *Little Rock, Ark; Ann Arbor, Mich; and Rochester, Minn*

COVID-19

COVID-19, health disparities, and what the allergist-immunologist can do

Princess U. Ogbogu, MD,[a,b] Elizabeth C. Matsui, MD, MHS,[c,d] and Andrea J. Apter, MD, MSc, MA[e] *Cleveland, Ohio; Austin, Tex; and Philadelphia, Pa*

Review article

New considerations of health disparities within allergy and immunology

Chioma Udemgba, MD,[a] Sandeep K. Sarkaria, MD,[b] Patrick Gleeson, MD, MSCE,[c] Tyra Bryant-Stephens, MD,[d] Princess U. Ogbogu, MD,[e,f*] Paneez Khoury, MD, MHSc,[g*] and Andrea J. Apter, MD, MSc, MA[c*] *Bethesda, Md; Cleveland, Ohio; and Philadelphia, Pa*

Rostrum

Diversity, Disparities, and the Allergy Immunology Pipeline

Melody C. Carter, MD[1], Sarbjit S. Saini, MD[2], and Carla M. Davis, MD[3] *Bethesda, Baltimore, Md; and Houston, Texas*

Rostrum

Disparities in Asthma and Allergy Care: What Can We Do?

Princess U. Ogbogu, MD[a,b], Quinn Capers IV, MD[c], and Andrea J. Apter, MD, MSc, MA[d] *Cleveland and Columbus, Ohio; and Pennsylvania, Pa*

Figure 2
Ways the allergist/immunologist can impact health disparities. The allergist/immunologist can impact health disparities through interaction with various stakeholders including patients and families, community organizations, local government, medical schools and postgraduate training programs, and professional A/I organizations.

Clinical Commentary Review

Diversity, Equity, and Inclusion: A Decade of Progress?

Bridgette L. Jones, MD, MS[a], Melody C. Carter, MD[b], Carla M. Davis, MD[c], and Julie Wang, MD[d] *Kansas City, Mo; Bethesda, MD; Houston, Texas; and New York, NY*

Clinical Commentary Review

Reducing Health Disparities in Asthma: How Can Progress be Made

Alan P. Baptist, MD, MPH[a], Andrea J. Apter, MD, MSc, MA[b], Peter J. Gergen, MD, MPH[c], and Bridgette L. Jones, MD[d,e] *Ann Arbor, Mich; Philadelphia, Pa; Bethesda, Md; and Kansas City, Mo*

Research Article

Implementation of Stock Epinephrine in Chartered Versus Unchartered Public-School Districts

Kathryn B. Neupert, MD[a,b] Margaret P. Huntwork, MD, MEd[c] Chioma Udemgba, MD[d,e] John C. Carlson, MD, PhD[f]

Original Article

Racial and Ethnic Disparities in Allergen Immunotherapy Prescription for Allergic Rhinitis

Sunjay Modi, MD[a], Matthew R. Norris, MD[a], Victoria Nguyen, DO[b], Robert Bower, BS[b], Timothy J. Craig, DO[a], and Taha Al-Shaikhly, MBChB[a] *Hershey, Pa*

Table 1
Overview of the train the trainer guide: health disparities education program from the Society of General Internal Medicine Disparities Task Force

Modules	Content Areas
Module 1. Disparities foundations	Review of disparities data Role of social determinants Role of health care Role of provider-patient encounter Resources for updating disparities information
Module 2. Teaching disparities in the clinical setting	Challenges to teaching in the clinical setting (hidden curriculum, institutional dynamics) Suggestions for working with skeptical learners (eg, reasons for resistance, model and recognize good behavior, demonstrate knowledge and skills) Five cases (limited English proficiency, medical mistakes, limited literacy, stereotyping, informed consent)
Module 3. Disparities beyond the clinical setting	Sample exercises: increasing awareness of self and others Small group teaching triggers Large group lectures: trust, disparities Addressing bias Sample cases, vignettes, and video resources
Module 4. Teaching about disparities through community involvement	Description and overview of the US health care system Introduction to community Worlds apart: discussion of mistrust of health care and racism and how they contribute to health care disparities, particularly in some African American communities Community as a positive force
Module 5. Curriculum evaluation	Program evaluation, design features of an evaluation study that allow investigator to: draw conclusions about specific instance, and identify threats to reliability and validity

Data from Society of General Internal Medicine (SGIM). A Train the Trainer Guide: Health Disparities Education, 2008. Available at: https://www.sgim.org/File%20Library/SGIM/Communities/Education/Resources/SGIM-DTFES-Health-Disparities-Training-Guide.pdf. Accessed Feb 21 2019.

Blanco et al. 2020

Table 2
Overview of quality improvement framework to address health disparities proposed by Aysola and Myers

Step	Content Area
Step 1. Define terms and concepts	Review of the basic terms and concepts related to health equity Explaining distinction between HCDs and HDs Reducing HCD: should be initial focus within QI efforts
Step 2. Understand and disseminate the current knowledge of HCDs in field	Set of strategies that medical educators can use to engage residents/fellows to address HCDs, using a two-step method: (1) raising faculty awareness of HD/HCD relevant in their clinical field; (2) develop a plan of dissemination of this information to colleagues and trainees
Step 3. Identify HCDs locally and apply QI methods to address them	Reviewing potential sources and methods for obtaining/analyzing data to determine whether and if so, why an equity gap may exist in an institution Review strategies for and share examples of applying classic QI methods to address identified disparities
Step 4. Evaluate every QI effort for the potential equity angle	Independent from previous steps Addressing how every QI effort provides an opportunity to consider health equity

Abbreviations: HCD, health care disparity; HD, health disparity; QI, quality improvement.
Data from Aysola J, Myers JS. Integrating Training in Quality Improvement and Health Equity in Graduate Medical Education: Two Curricula for the Price of One. Acad Med 2018;93(1):31-34.

Blanco et al. 2020

Table 3
Overview of several educational methods and interventions in health disparity education

Reference	Educational Method/Model	Brief Description	Topics Covered
Patow et al,[52] 2016	Experiential education	Educational models developed for residents, fellows, and faculty with goal to improve understanding of cultural diversity and health care disparity Various models used, including simulation scenarios, community tours, house calls, cultural films, and so forth	Ethnic and cultural diversity Cultural competence in health care Community advocacy Social determinants of health Ethnic foods, cultural goods, and traditional remedies
Paul et al,[53] 2009	Medical-legal partnerships	Education of medical students and residents, by lawyers, how to address patients' legal needs Promotes physician role in advocating for housing and government benefits for their patients	Family advocacy Legal assistance for medical patients Medical-legal partnership
Benson et al,[54] 2018	Quality improvement health disparity initiative	Educational initiative designed to increase resident awareness of prevalent health disparities in the community delivered through PDSA framework, divided into 2 cycles Cycles were organized through either didactic sessions (PDSA cycle I) or small group discussion format (PDSA cycle II)	General health disparity Diabetes-related health disparity, diabetes self-management and education
Ross et al,[48] 2010	"Train the Trainer" curricula	A 5-module curricula on health disparity in various settings and social determinants of health, designated to educate faculty through didactics, small group sessions, case-based lectures, and so forth	Disparity foundations Teaching disparities in the clinical setting Disparities beyond the clinical setting Teaching about disparity through community involvement Curriculum evaluation
Noriea et al,[55] 2017	Lecture-based curricula	General health disparity 2-y curricula for internal medicine residents, delivered through didactics sessions and experiential learning (assigned videos) and case discussions	Social determinants of health Environmental determinants of health Patient-provider interaction Patient advocacy Disparities in research Language, acculturation, and immigrant health

Abbreviation: PDSA, plan-do-study-act.

Blanco et al. 2020

Special Article

Toolkit for Developing Structural Competency in Health Disparities in Allergy and Immunology Training and Research

Chioma Udemgba, MD[a], Akilah A. Jefferson, MD, MSc[b], Jessica Stern, MD, MS[c], and Paneez Khoury, MD, MHSc[a]
Bethesda, Md; Little Rock, Ark; and Rochester, NY

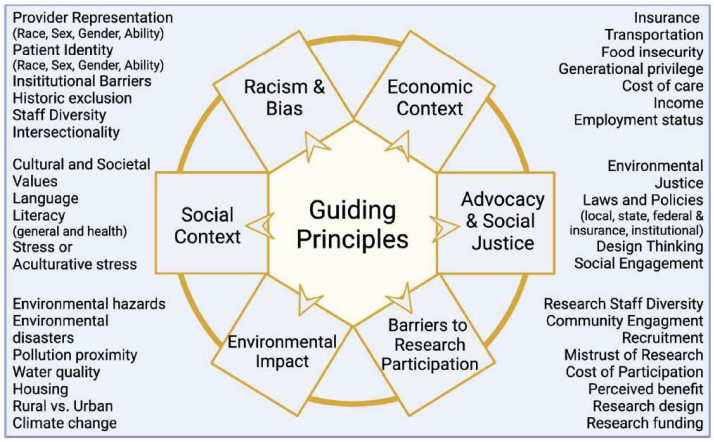


FIGURE 1. Guiding principles for developing a framework of core competencies for disparities training in Allergy and Immunology, including: (1) racism and bias; (2) economic context; (3) barriers to research participation; (4) advocacy and social justice; (5) social context; and (6) environmental impact.

Special Article

Toolkit for Developing Structural Competency in Health Disparities in Allergy and Immunology Training and Research

Chioma Udemgba, MD[a], Akilah A. Jefferson, MD, MSc[b], Jessica Stern, MD, MS[c], and Paneez Khoury, MD, MHSc[a]

Developing effective models for addressing structural competency

Pre-Planning	Planning	Feedback
• Define clear objectives for your session • Identify the target audience • Identify the best facilitators and session leaders available for the session • Review the resources (e.g – time, funding, space, technology, and people) available to you	• Create interactive sessions using the adult learning theory[5,6] - Motivational and self-reflective - Relevant and Succinct - Facilitated experiences • Prepare a mechanism for evaluating the curricula and obtaining useful feedback	• Assess whether curricula met the session goal and objective • Assess participants' willingness to attend future sessions associated with the curricula • Provide opportunities for open feedback • Implement and adjust curricula based on feedback provided

Curriculum design requires careful considerations of the target audience, available resources, background understanding of health disparities of participants and session leaders. It is important to transmit high-yield, evidence-based information in a format that engages participants. Disseminating practical tools, resources, and information is critical

- Structured education based on disparities literature
- 3 session teaching resource
- Adult learning theory
- Background health disparities and structural racism
- Experiential learning workshop

Domain	Barrier	Action	Structural Competency
Food Allergy	Financial barriers in care of patients with food allergy • Socioeconomic status • Nutritional support • Food insecurity • Access to epinephrine auto-injectors • Access to sub-specialists • Structural barriers to attending appointments	Multidisciplinary approach incorporating social workers, dieticians, and community health workers. Implement screeners to assess barriers to care Partner with community members to provide needed resources (e.g., food pantries, support groups, food vouchers with local grocery stores/farmer's markets, drug assistance programs, food policy council) Engage with primary care providers to educate and provide resources on food allergy	Recognize the influence of structures on patient health Recognize and respond to influences of structures on the clinical encounter Engage in structural humility

Areas and barriers for addressing structural competencies – Food Allergy

AAAAI Work Group Report

American Academy of Allergy Asthma & Immunology

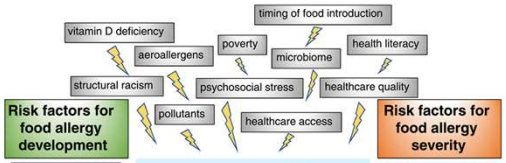
Food Insecurity in the Food Allergic Population: A Work Group Report of the AAAAI Adverse Reactions to Foods Committee

Jodi Shroba, APRN, MSN, CPNP[a], Rajeshree Das, BA[b], Lucy Blaver, PhD[b], Eileen Vincent, MS, RDN[c], Emily Brown[c], Brooke Polk, MD[d], Ashley Ramos, PhD[e], Anne F. Russell, MS, BSN, RN, AE-C[f], J. Andrew Bird, MD[g], Christina E. Ciaccio, MD, MSc[h], Bruce J. Lanser, MD, MPH[i], Kim Mudd, RN, MSN[j], Anika Sood, MD[k], Brian P. Vickery, MD[l], and Ruchi Gupta, MD, MPH[m] *Kansas City and St Louis, Mo; Chicago, Ill; Washington, DC; Spring Arbor, Mich; Dallas, Texas; Denver, Colo; Baltimore, Md; Little Rock, Ark; and Atlanta, Ga*

Episode 37: Impact of Disparities on Food Allergy

In this episode, Carla M. Davis, MD, FAAAAI, discusses the influence of race, gender, ethnicity, and socioeconomic factors on various aspects of food allergy. This wide ranging conversation discusses multiple important areas, including how disparities impact prevalence, morbidity, quality of life, and access to services.
(October 19, 2020)

Click here to listen to the podcast
Read the transcript of the conversation



Clinical Commentary Review

Advancing Food Allergy Through Epidemiology: Understanding and Addressing Disparities in Food Allergy Management and Outcomes

Christopher M. Warren, PhD[a,b], Paul J. Turner, FRCPCH, PhD[c,d], R. Sharon Chinthrajah, MD[e], and Ruchi S. Gupta, MD, MPH[f,g] *Chicago, Ill; Mountain View, Calif; London, United Kingdom; and Sydney, NSW, Australia*

Editorial

Moving FORWARD Toward Racial Equity in Food Allergy

Carla M. Davis, MD *Houston, Texas*

Access to Allergen-Free Food Among Black and White Children with Food Allergy in the FORWARD Study

Amaziah T. Coleman MD, Hemant Sharma MD, MHS, Adam Robinson BS, Andrea A. Pappalardo MD, Eileen Vincent MS RDN, Jamie L. Fierstein PhD, Mech Frazier MA, Lucy Blaver PhD, Jialing Jiang BA, Johnathan J. Choi BBA, Ashwin Kulkarni BS, Susan Fox MMS, PA-C, Christopher Warren PhD, Mahboobeh Mahdavinia MD, PhD, Mary Tobin MD, Amal Assa'ad MD and Ruchi Gupta MD, MPH

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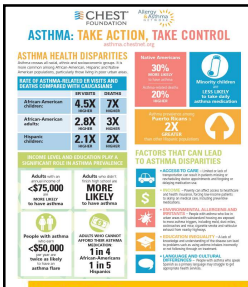
Review article

Social disparities in early childhood prevention and management of food allergy

Roxanne Dupuis, MSPH,[a] Wanda Phipatanakul, MD, MS,[b,c] and Lisa M. Bartnikas, MD[b,c] *Boston, Mass*

Linking historical discriminatory housing patterns to the contemporary food environment in Baltimore

Richard C. Sadler[a,c], Usama Bilal[b], C. Debra Furr-Holden[c]



Review article

Structural racism and its pathways to asthma and atopic dermatitis

Adali Martinez, MD, MPH,[a] Rosemarie de la Rosa, PhD,[b] Mahasin Mujahid, PhD, MS,[b] and Neeta Thakur, MD, MPH[a] *San Francisco and Berkeley, Calif*

Clinical reviews in allergy and immunology

The impact of environmental injustice and social determinants of health on the role of air pollution in asthma and allergic disease in the United States

Quindelyn Cook, MD,[a] Kira Argenio, MPH,[b] and Stephanie Lovinsky-Desir, MD, MS[b] *Boston, Mass; and New York, NY*

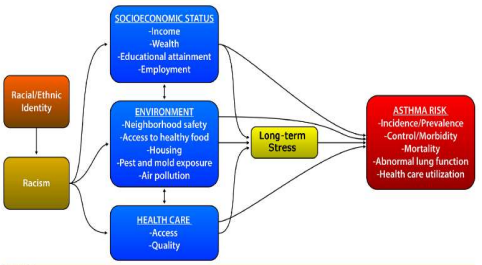
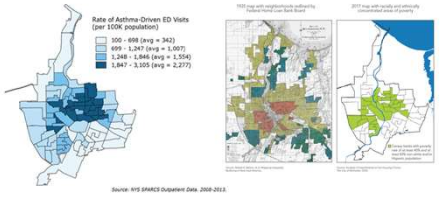


Figure 1
The relationship of racism, SDoH, and asthma risk and disparity in the United States. SDoH, social determinants of health.

Domain	Barrier	Action	Structural Competency
Asthma	Access to subspecialist care Underestimation or unacknowledged assessment of barriers to health care Distrust of providers due to patient biases stemming from structural racism Lack of resources to attend visits or engage with healthcare system	Incorporate home or telemedicine visits into assessment of patients with poor clinical improvement or difficulty attending appointments Coordinate with social services to assist with building trust and bridging care gaps (e.g. - use of case managers or community health workers to perform home visits, adherence to medications, and health assessments) Improve assessment of social determinants of health (e.g. - assess presence of allergens/irritants in home, insurance status, access to medications, transportation) Improve recruitment practices and protocol design in clinical trials by recruiting clinical staff from diverse backgrounds Improve efforts to build trust in communities that experienced systemic oppression	Recognize and utilize extra-clinical resources to enhance patient care and outcomes in diverse cultural and socioeconomic settings Recognize and/or utilize the specialty specific role of interdisciplinary teams in addressing health equity Assess or design quality improvement interventions to improve diverse patient's experience of healthcare Identify, evaluate, and incorporate clinical practices that promote health equity in clinical practice and/or medical research

Areas and barriers for addressing structural competencies – Asthma

Rate of Asthma-Driven ED Visits by Census Tract



Associations between historical residential redlining and current age-adjusted rates of emergency department visits due to asthma across eight cities in California: an ecological study

Anthony Nardone, Joan A Casey, Rachel Morello-Frosch, Mahasin Mujahid, John R Balmes, Neeta Thakur

4

TABLE IV. Toolkit: identify and address health disparities competency domains

Area	Opportunities and mechanisms to address health disparities for trainees and providers	Resources
General concepts for health disparities focused care of patients with allergic and immunologic diseases	Educational course for trainees and providers	AAAAI Slide Deck[17] on Disparities within Allergy and Immunology by the Committee on the Underserved (AAAAI membership required) Health and Human Services has created an educational program[18] for physicians (and other providers) directed at addressing the National CLAS Standards, which are a set of 15 action steps intended to advance health equity, improve quality, and help eliminate health care disparities AAP Course: Fighting Racism to Advance Child Health Equity (AAP membership required)[19]
	Engage in structural humility by identifying bias and structural barriers in local context	Hire and support diverse staff representative of the community—American Hospital Association Diversity Assessment Tool[20] Ensure that systems are in place to provide culturally competent, shared decision-making in counseling and education regarding disease—Cultural Competency Self-Assessment Tool[21] by the NCCC
	Incorporate and assess community needs or social determinants of health assessments in clinical practice and management decisions	Adaptable resources American Academy of Family Practice 10-Question Screening Tool[22] (Everyone Project) iScreen Social Screening Questionnaire—46 Question Survey Tool[23] CDC Community Health Improvement Navigator[24] NACHC Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE)[25] Rural Health Information Hub's Tools[26] to assess and measure social determinants of health
Integrating Equity into QI and PS (IHI)	Free resources to support healthcare entities and clinicians interested in sustainable ways to advance health outcomes within their community, health system, and beyond. http://www.ihi.org/resources/Pages/default.aspx	
PROMIS® (Patient-Reported Outcomes Measurement Information System®)	A set of person-centered measures that evaluates and monitors physical, mental, and social health in adults and children. It can be used with the general population and with individuals living with chronic conditions. https://www.healthmeasures.net/explore-measurement-systems/promis	
Agency for Healthcare Research and Quality	A comprehensive source of hospital care data, health care delivery, and patient outcomes over time, and at the national, regional, state, and community levels. Trends for measures related to access to care, affordable care, care coordination, treatment, patient safety, and person-centered care are available. Healthcare Cost and Utilization Database https://www.ahrq.gov/data/hcup/index.html National Healthcare Quality and Disparities Reports https://www.ahrq.gov/research/findings/nhqrdr/index.html	

Racism, bias, and discrimination in recruiting practices and protocol design for research studies

Assess understanding of the impact of structural racism on health outcomes and research design

Interactive Case-Based Discussion – Example Exercises/Prompts

An interactive case discussion was used to highlight the real-world clinical scenario of addressing the upstream and downstream effects of health disparities. Facilitators presented the case and asked in real time questions to participants. After the case, participants were asked to debrief using the following questions:

- Have you cared for a patient in a similar situation?
- What are ways you can access these issues with access to care and other barriers to quality of care earlier in the collection of the HPI?
- How comfortable do you think his grandmother would feel bringing up these issues with barrier to care with you?
- Do you know how these elements impact the patient's perception of care?

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https://doi.org/10.1007/s10875-022-01377-4

LETTER TO EDITOR

Serving Underserved Patients with Primary Immune Deficiency Disorders: A Pilot Educational Program for Clinical Fellows

Jessica Galant-Swafford[1] · Elizabeth George[2] · Anna Meyer[3]

Received: 27 June 2022 / Accepted: 28 September 2022 / Published online: 13 October 2022

- Even where tools available, disparities remain
- Example: Patients with primary antibody deficiency BMC > higher proportions Black/ Latinx vs USIDNET, 30.1 % IVIG vs 86.8% UDIDNET
- Formalize education: ASCEND (**A**ddressing **S**ocioeconomic and **C**ultural **E**ducation i**N** immuno**D**eficiency)
- A/I fellows met twice monthly for didactic and workshop based sessions
- Multi-perspective sessions , 1 -5. Offered every 2 years

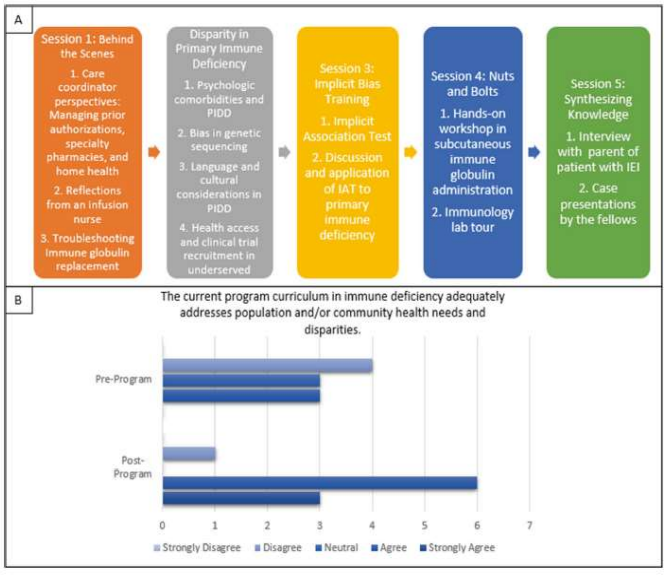

Fig. 1 Addressing primary immune deficiencies within minority and underserved populations

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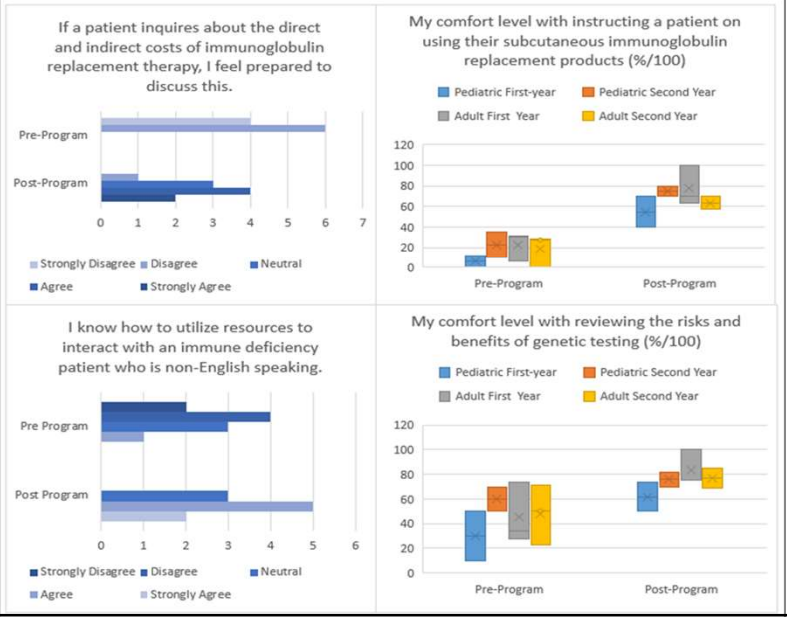
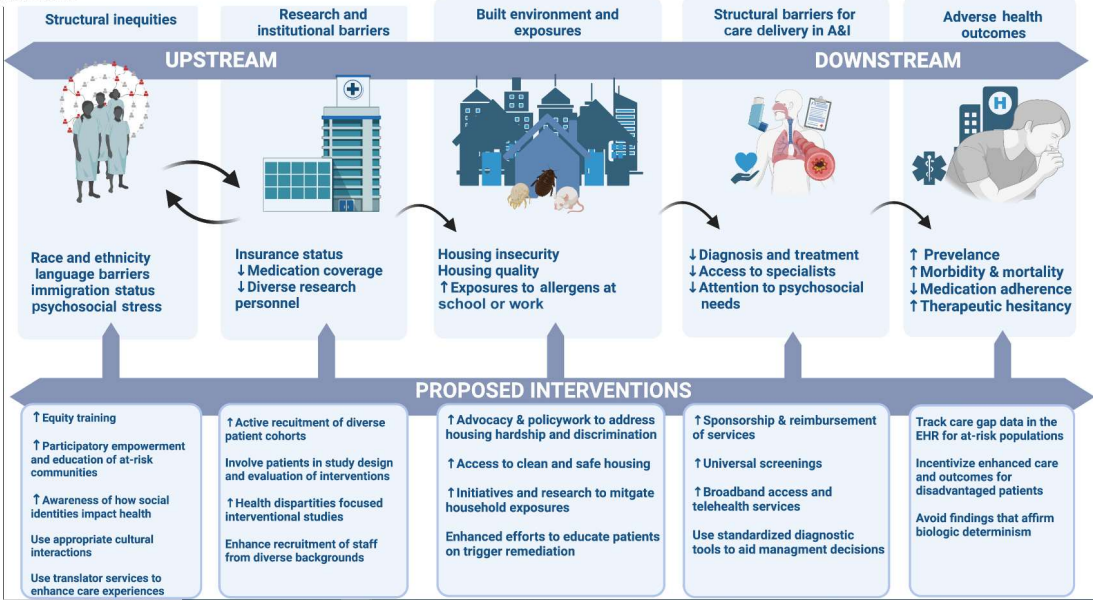
Supplementary Figure 1:
Outcomes of an educational program in the care of underserved immunodeficiency patients



Review article

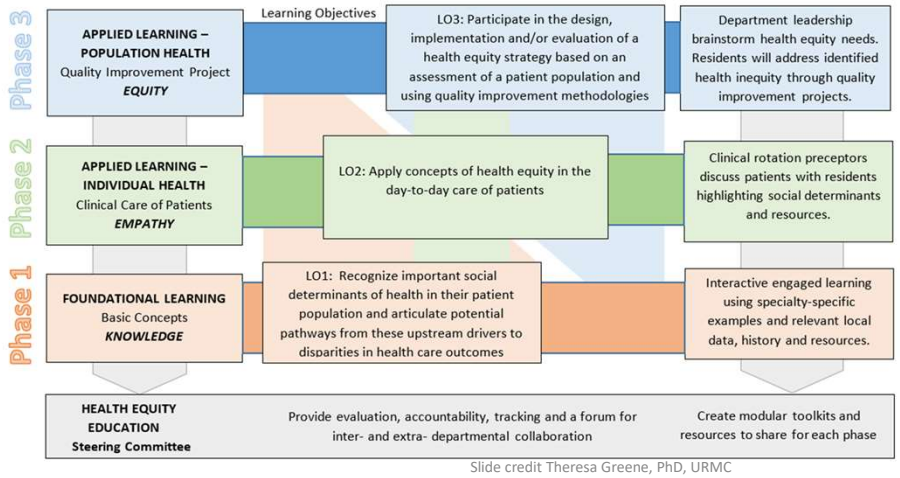
New considerations of health disparities within allergy and immunology

Chioma Udemgba, MD,[a] Sandeep K. Sarkaria, MD,[b] Patrick Gleeson, MD, MSCE,[c] Tyra Bryant-Stephens, MD,[d] Princess U. Ogbogu, MD,[a,e]* Paneez Khoury, MD, MHSc,[e]* and Andrea J. Apter, MD, MSc, MA[e]* *Bethesda, Md; Cleveland, Ohio; and Philadelphia, Pa*



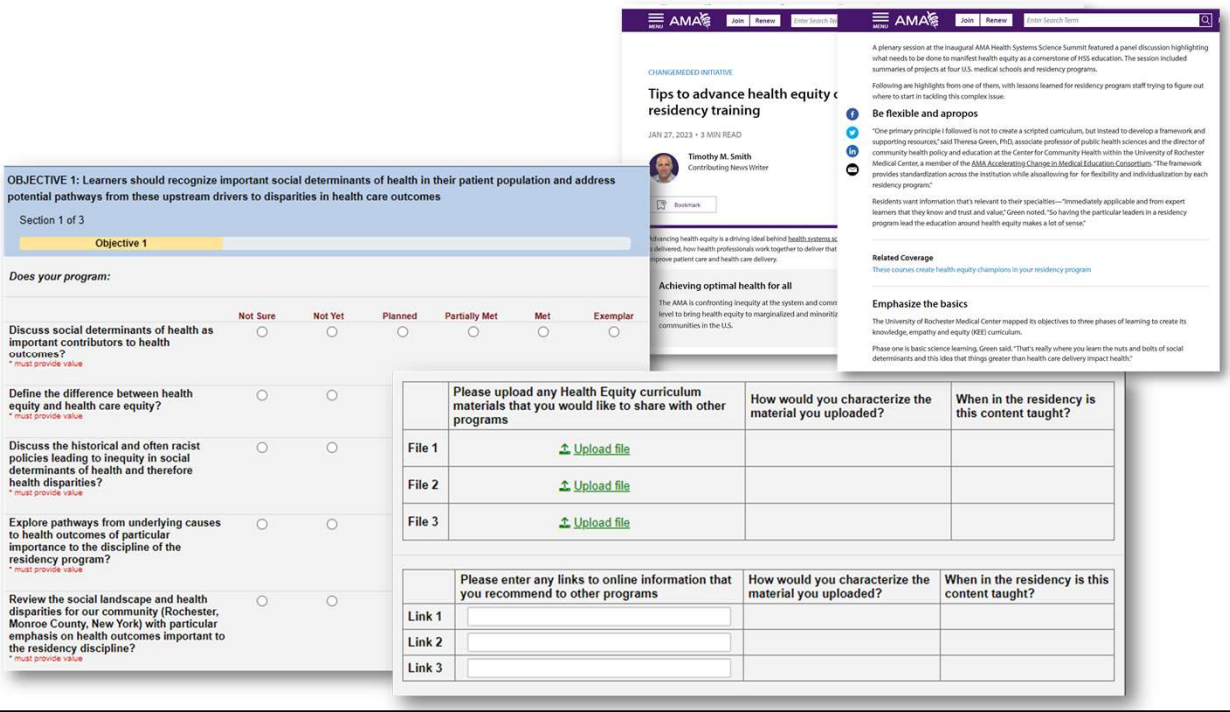
Knowledge, Empathy and Equity

The KEE Curriculum Framework for Teaching Health Equity



UR MEDICINE

Slide credit Theresa Greene, PhD, URMC



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What is your Health Equity Action Plan?

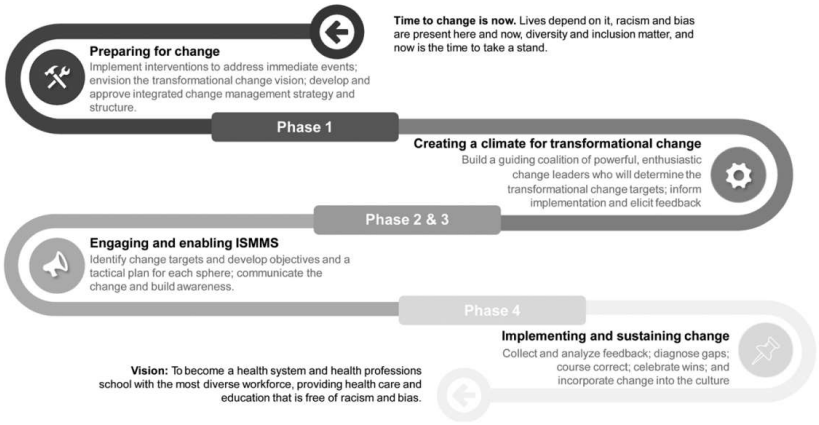
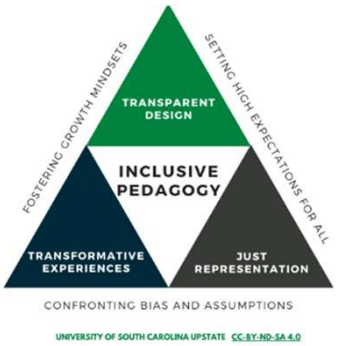


Figure 1 The Racism and Bias Initiative's change process map. As a result of Icahn School of Medicine at Mount Sinai (ISSMS) medical student activism and advocacy, the Racism and Bias Initiative was launched to explicitly address and undo racism and bias in all areas of medical school, and to center racial justice, health equity, and underrepresented voices and experiences of all medical education colleagues.

What is your Health Equity Action Plan?

- Use a Social Justice Lens & Growth Mindset
- Embrace the journey, it will be arduous at times
- Get proximal, self reflect, check bias
- Center lived experiences
- Be learner centered and co-create
- Learn from each other
- Hold each other accountable
- Place your curriculum in the larger context of society
- Affirm your students
- Avoid calling on your equity deserving students to be the gatekeepers in this knowledge



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What is your Health Equity Action Plan?

Individual changes

1. Diversify curriculum and course content
2. Encourage student/educator reflexivity on intersecting identities
3. Explore implications of microaggressions
4. Make connections between everyday racism and systems of oppression
5. Interrogate claims of race neutrality

Systemic/Institutional changes

1. Leadership commitment to Anti-racism/Organizational cultures
2. Value Lived experiences
3. Faculty Development
4. Representation in those delivering the curriculum
5. Prioritization throughout all instruction
6. Fair and equitable evaluation of students
7. Safe, Transparent Reporting system with Accountability

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Resources

- JACI in Practice articles
- AAAAI DEI website resources
- AAAAI Teaching slides
- Leadership Institute project slides
- AAAAI Webinars

Conversations from the World of Allergy

Episode 81: We Are All Impacted by Implicit Biases

Margee Louisias, MD, MPH, discusses exciting new initiatives from the AAAAI Diversity, Equity and Inclusion Committee, including a series of webinars on the role of implicit biases and health equity. This episode explores how implicit and explicit biases impact various aspects of allergy/immunology and ways to address them. (January 13, 2023)

Episode 69: Serving the Underserved: A Real World Asthma Study With Promising Applications

Asthma expert Elliot Israel, MD, FAAAAI, discusses the PREPARE trial, the results of which were recently published in *The New England Journal of Medicine* and presented at the 2022 AAAAI Annual Meeting. This conversation weaves in important dialogue surrounding asthma disparities, as well as details of this landmark study. (May 9, 2022)

Episode 38: Asthma Disparities

In this episode, Tamara T. Perry, MD, FAAAAI, discusses aspects of asthma prevalence, management, and prognosis—and how each are impacted by factors such as race and socioeconomic status. Listen now for an in-depth discussion of timely and important topics. (October 28, 2020)

The Impact of Implicit Bias on Health Outcomes and Strategies for Reducing Bias

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