

2022 Featheringill Keynote Lecture

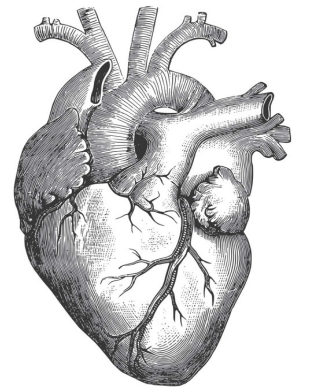
New Horizons

For Advancing Cardiovascular Health Equity

George A. Mensah, M.D.

Director

Center for Translation Research & Implementation Science
National Heart, Lung, and Blood Institute
National Institutes of Health

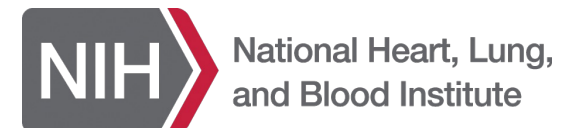


Presented at:

9TH ANNUAL SYMPOSIUM

New Horizons in Cardiovascular Disease:
A Focus on Cardiometabolism & CardioOncology

December 8, 2022



Disclaimer and Disclosure Statements

- Nothing to disclose.
- The contents of this presentation should not be construed as representing an official position of the NIH or the Department of Health and Human Services.

AGENDA – THURSDAY, DECEMBER 8, 2022

1:00pm-1:05pm

1:05pm-2:05pm

Moderator:

1:05pm-1:10pm

1:10pm-1:55pm

1:55pm-2:05pm

2:10pm-4:00pm

Moderator:

2:10pm-2:15pm

2:15pm-2:35pm

Welcome: Nicole Lohr, MD, PhD, FACC

Session I: Featheringill Keynote Address

George Howard, DrPH

Moderator Overview

William W. Featheringill Keynote

Address: New Horizons for Advancing Cardiovascular Health Equity - **George A. Mensah, MD, FACC, FAHA**

Discussion

Session II: Cardio-Oncology/Immunology

Carrie Lenneman, MD, MSCI

Moderator Overview

Cardiovascular Care of Oncology

Patients: Taking Matters to Heart - **Dr. Efstathia Andrikopoulou, MD, MBA, FACC**

2:35pm-2:55pm

2:55pm-3:15pm

3:15pm-3:35pm

3:35pm-3:55pm

4:00pm-5:00pm

Moderator:

5:00pm-7:00pm

Cardiovascular Complications from Immunotherapy: Tip of the Iceberg - **Javid Moslehi, MD**

The Red Devil: Is there an antidote? Hemopexin as a cardioprotective pathway - **Aarti Asnani, MD**

Potential strategies to mitigate the ponatinib-induced cardiotoxicity - **Hind Lal, PhD**

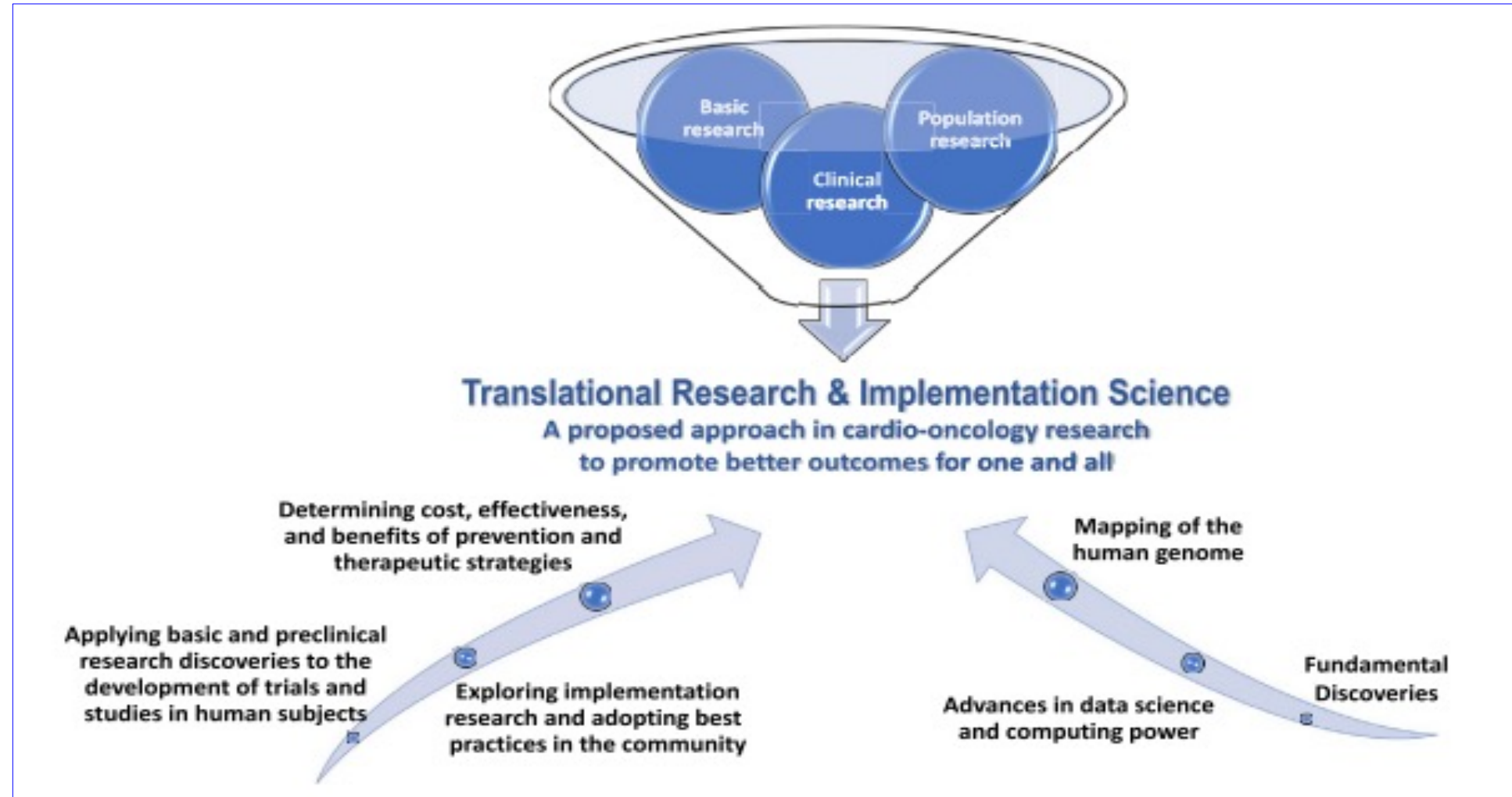
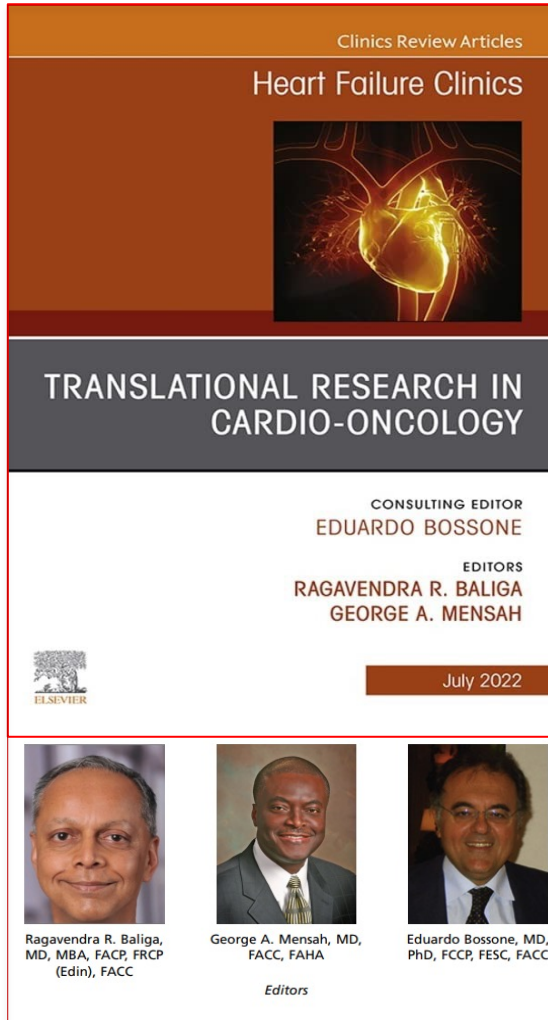
Panel Discussion

Session III: Poster “Blitz”, Short presentations: 1 slide/2 minutes

Min Xie, MD, PhD

Poster Session

Session II on Cardio-Oncology/Immunology



New Horizons For Advancing Cardiovascular Health Equity

Presentation Outline

1. Historical perspectives & the current state of disparities
2. Lack of substantive progress in reducing disparities
3. The need for a different strategy for health equity
4. Seven insights for charting new horizons

BLUF: Bottom Line Up Front

1. For more than 120 years, researchers have documented marked disparities in health & healthcare by race/ethnicity, sex/gender, geography, SES, etc.
2. Recent data from CDC shows little or no change in disparities for most of the objective measures used to track changes in health disparities.
3. For many important cardiovascular risk factors such as hypertension, and major causes of death such as heart failure, disparities have worsened.
4. To achieve better results and strive toward health equity, we must examine our strategies for reducing health disparities in clinical practice and research.
5. In this presentation, I share **seven insights for charting new horizons** for advancing quality health for all and attaining cardiovascular health equity.

Selected References

1. Du Bois, W.E.B. *The Philadelphia Negro: A Social Study*. Philadelphia: University of Pennsylvania; 1899.
2. Levins H. Struggling to Escape Poor Health: 120 Years of Health Disparities Reports. African-American and Other Minorities' Long Quest for Equal Treatment in Health Care, April 2019. 2019. <https://ldi.upenn.edu/news/struggling-escape-poor-health-120-years-health-disparities-reports>. Accessed July 31, 2021.
3. U.S. Department of Health and Human Services (DHHS). *Report of the Secretary's Task Force on Black and Minority Health. Volume IV: Cardiovascular and Cerebrovascular Disease: Part 2*. Washington, DC: DHHS; 1985.
4. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Health Equity in Healthy People 2030. <https://health.gov/healthypeople/priority-areas/health-equity-healthy-people-2030>. Accessed November 27, 2022.
5. Huang DT, et al. *Examining progress toward elimination of racial and ethnic health disparities for Healthy People 2020 objectives using three measures of overall disparity*. National Center for Health Statistics. *Vital Health Stat* 2(195). November 2022.
6. AHRQ. National Healthcare Quality and Disparities Reports. <https://www.ahrq.gov/research/findings/nhqrdr/index.html>. Accessed October 23, 2021.
7. Glynn P, et al. Disparities in Cardiovascular Mortality Related to Heart Failure in the United States. *J Am Coll Cardiol*. May 14 2019;73(18):2354-2355.
8. Global Burden of Diseases US Health Disparities Collaborators. Life expectancy by county, race, and ethnicity in the USA, 2000-19: a systematic analysis of health disparities. *Lancet*. Jul 2 2022;400(10345):25-38.
9. Shelton RC, Chambers DA, Glasgow RE. An Extension of RE-AIM to Enhance Sustainability: Addressing Dynamic Context and Promoting Health Equity Over Time. *Front Public Health*. 2020;8:134.
10. Woodward EN, Singh RS, Ndebele-Ngwenya P, Melgar Castillo A, Dickson KS, Kirchner JE. A more practical guide to incorporating health equity domains in implementation determinant frameworks. *Implement Sci Commun*. Jun 5 2021;2(1):61.
11. National Academy of Medicine, Policies OCfAMCEiHHCP. Assessing Meaningful Community Engagement: A Conceptual Model to Advance Health Equity through Transformed Systems for Health, 2022. <https://doi.org/10.31478/202202c>. Accessed October 22, 2022.
12. Bhavnani SP, Parakh K, Atreja A, et al. 2017 Roadmap for Innovation-ACC Health Policy Statement on Healthcare Transformation in the Era of Digital Health, Big Data, and Precision Health: A Report of the American College of Cardiology Task Force on Health Policy Statements and Systems of Care. *J Am Coll Cardiol*. Nov 28 2017;70(21):2696-2718.

Health Equity & Health Disparities: Definitions are Important

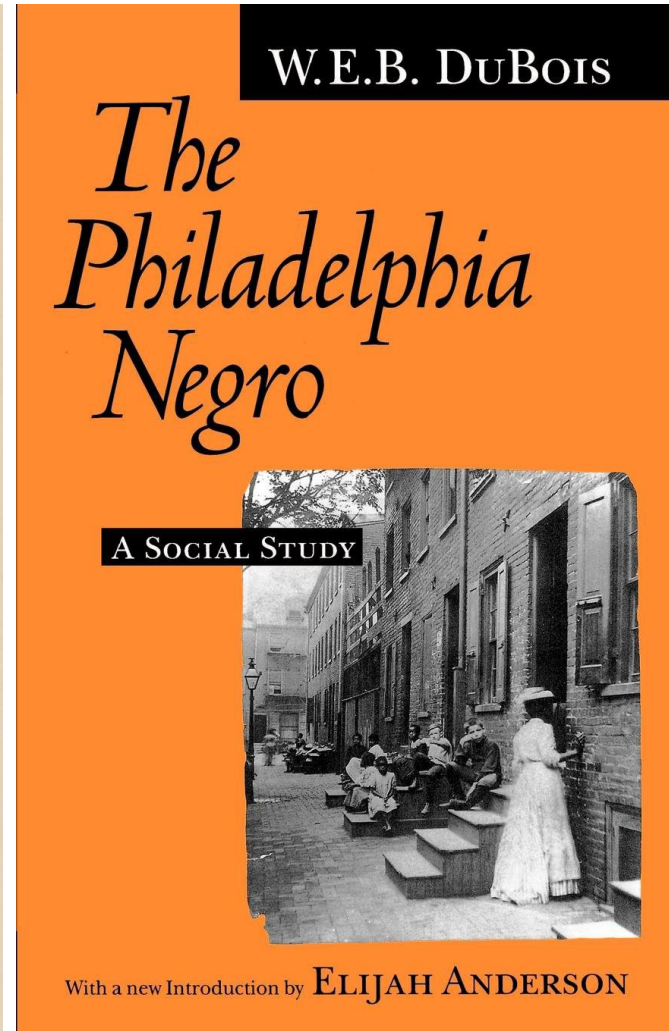
- **Health Disparity:** “A particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage.”
- **Health Equity:** “the attainment of the highest level of health for all people. Achieving health equity requires ... focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities.”



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For more than 120 years, researchers have documented disparities in health and healthcare in racial and ethnic minority populations



- Historic 500-page book.
- The first sociological study of a black community in the US.
- One of the earliest documented accounts of the social determinants of health.
- Excessive infant mortality – that was 82% higher in Blacks.
- High overall mortality rate.

Booker T. Washington's presentation at the Conference on Improvement of Health Conditions Among Negroes, 1915



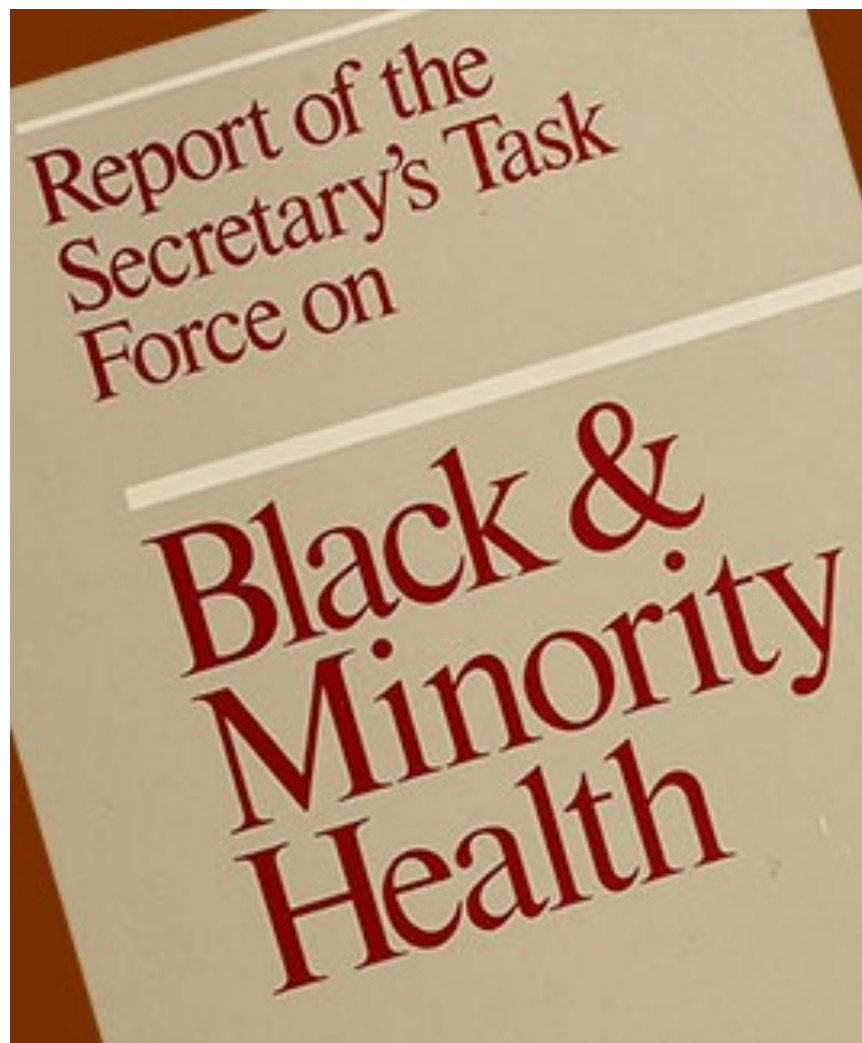
- 45 percent of all deaths among Negroes were preventable.
- There are 450,000 Negroes seriously ill all the time; the annual cost of this illness is 75 million dollars.
- Sickness and death cost Negroes annually 100 million dollars (2019 equivalent: \$1.9 B).

Working in partnership with the **U.S. Public Health Service**, Booker T. Washington launched the **Negro Health Week** as an annual campaign designed to raise awareness about health disparities.

Report of the Secretary's Task Force on Black and Minority Health, United States, 1985



Margaret M. Heckler
Margaret M. Heckler
Secretary



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Progress on Priorities of the Heckler Report on Black and Minority Health: 30th Anniversary Assessment, 2015

Priority	Trends	Most Recent Disparity	Disparity Change
Care for Cancer	71% Improving	50% Worse	67% Narrowing
Care for Cardiovascular Diseases	78% Improving	33% Worse	No Change
Care for Substance Use Disorders	No Improvement	No Disparity	No Change
Care for Diabetes	25% Improving	78% Worse	67% Narrowing
Suicide Prevention and Mental Health Care	33% Worsening	75% Worse	No Change
Infant Mortality and Maternity Care	100% Improving	33% Better	No Change

CDC data show little or no change in disparities for most of the objectives, regardless of the measure used

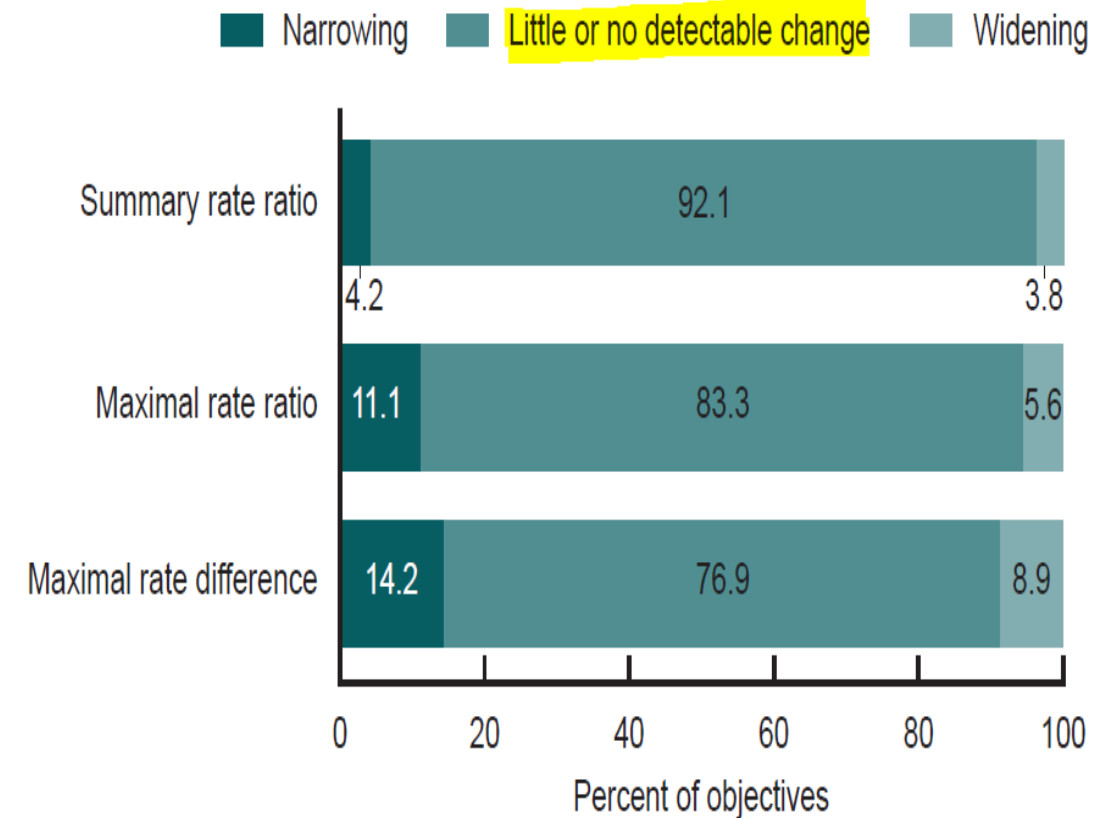
Examining Progress Toward Elimination of Racial and Ethnic Health Disparities for Healthy People 2020 Objectives Using Three Measures of Overall Disparity

Data Evaluation and Methods Research



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

NCHS reports can be downloaded from: <https://www.cdc.gov/nchs/products/index.htm>.



SOURCE: National Center for Health Statistics and Healthy People 2020.

2019 National Healthcare Disparities & Quality Report:

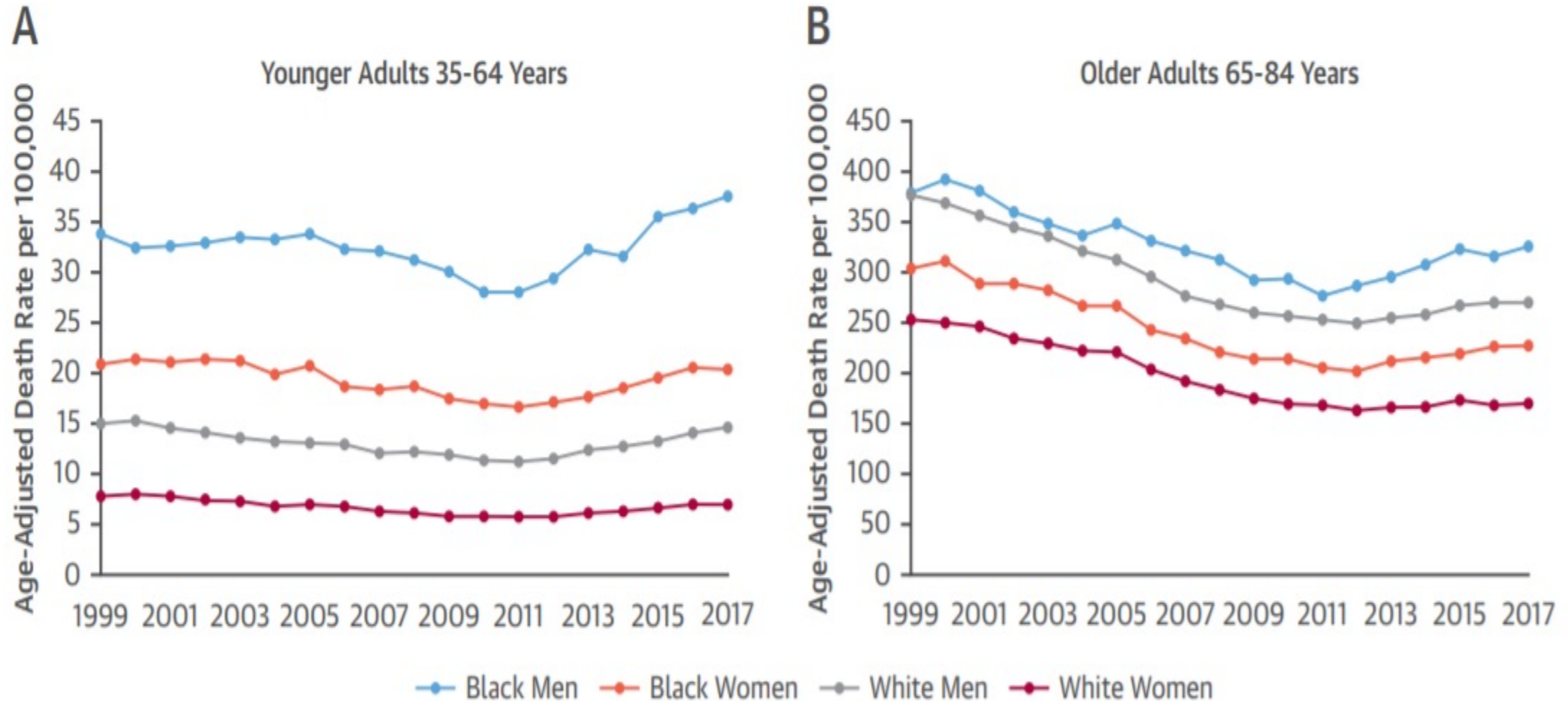
Racial/ethnic disparities in quality of care are common

2019 NATIONAL HEALTHCARE QUALITY & DISPARITIES REPORT



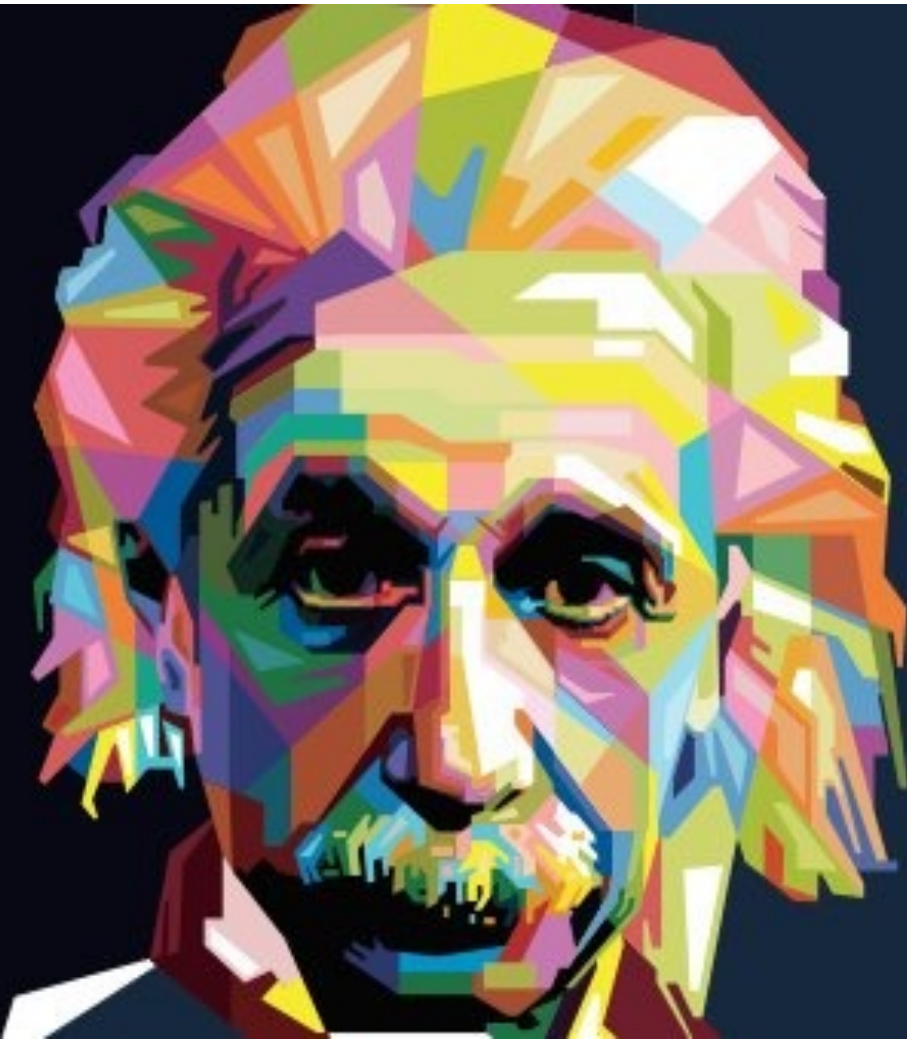
- For about 40% of quality measures, **Blacks and American Indians/Alaska Natives** received worse care than Whites.
- For more than one-third of quality measures, **Hispanics** received worse care than Whites.
- For nearly 30% of quality measures, **Asians** received worse care than Whites, but Asians received better care than Whites for nearly one-third (56 of 185) of quality measures.
- For one-third of quality measures, **Native Hawaiians/Pacific Islanders** received worse care than Whites.

Despite the progress made in the prevention and treatment of heart failure in the US, there are reasons for concern



Glynn P, et al. *J Am Coll Cardiol* 2019;73(18):2354-2355.

Our Efforts in Eliminating Disparities Have Shown Little Evidence of Substantive Change: **We Need Different Results**



“The definition of insanity is doing the same thing over and over again—but expecting different results.”

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Important questions we must ask in our efforts to get better results in reducing and eliminating health disparities

1. Why have we made important progress in advancing cardiovascular health but such little detectable difference in eliminating cardiovascular disparities?
2. What can we do differently to make substantive progress in reducing and eliminating cardiovascular health disparities?
3. How do we bring about transformative change rather than small incremental changes in reducing and eliminating cardiovascular disparities?

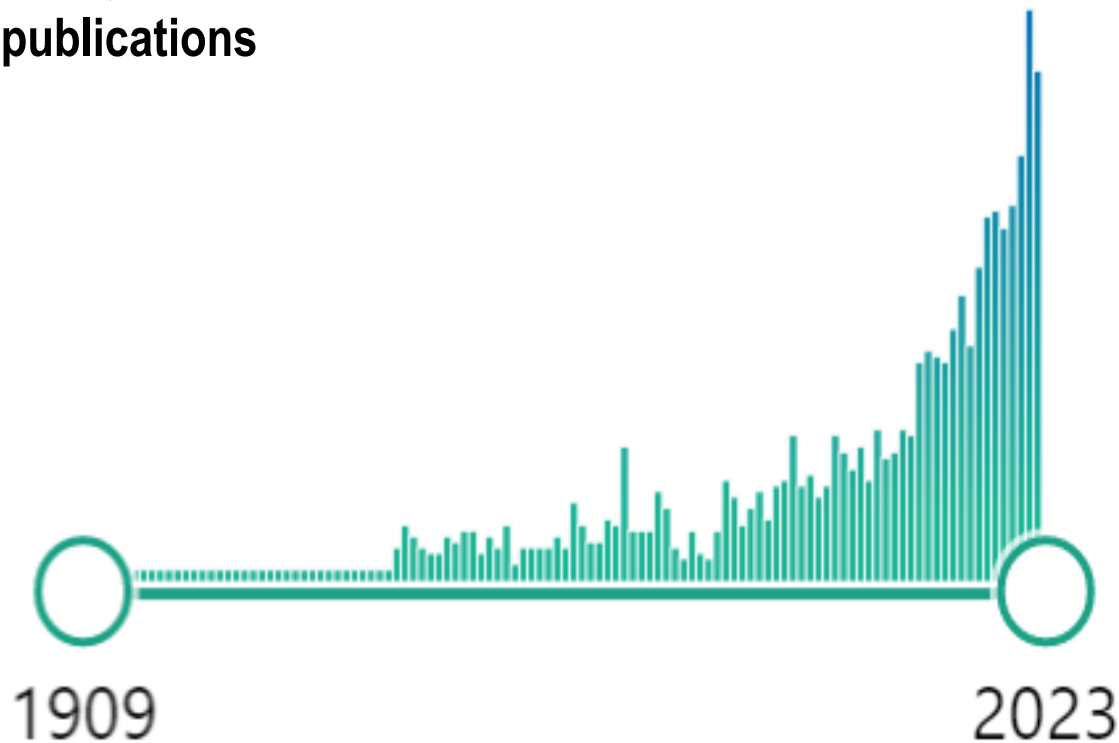
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A National Library of Medicine (PubMed) Search for New Horizons for Advancing Health Equity

N = 1,432
publications

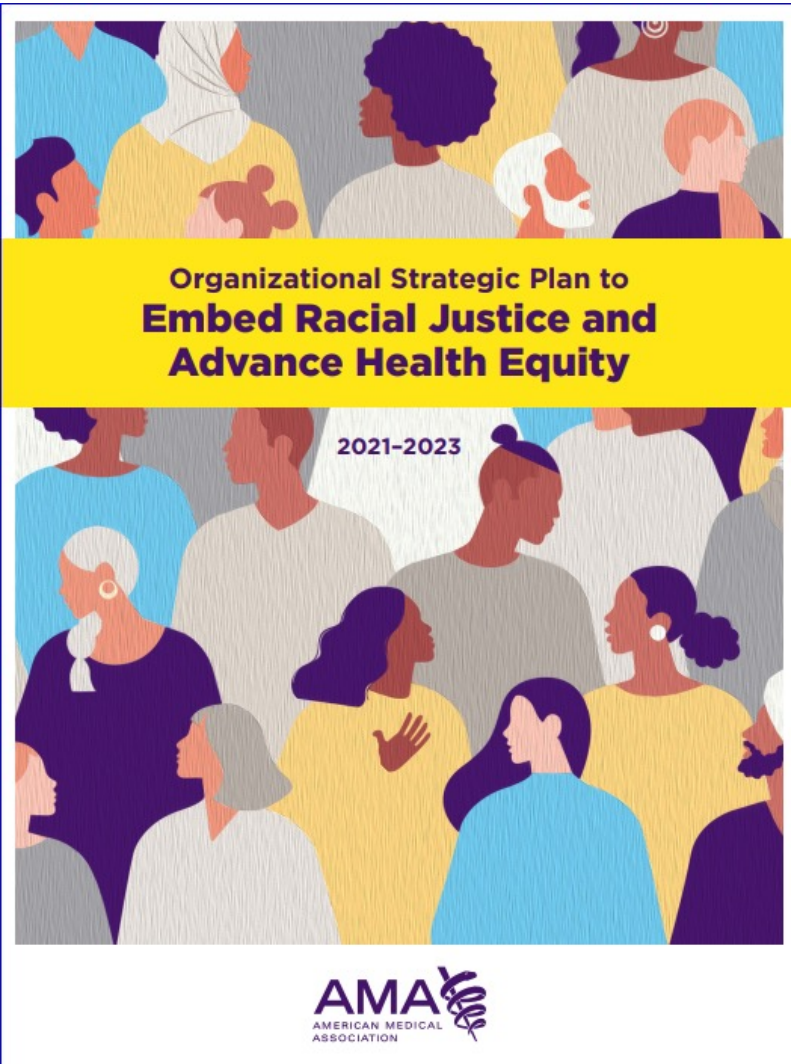


PubMed search, all languages;
November 27, 2022 at 10:40 am (EST)

- A search for “**New Horizons**” as a manuscript title in PubMed citations retrieved 1,432 papers.
- Rapid rise in citations since 2007.
- None of these papers had “Health Equity” in the title although two had “Disparities” in the title.
- **None addressed cardiovascular health (CVH) equity.**
- The time is ripe to explore new horizons for advancing CVH equity.

<https://pubmed.ncbi.nlm.nih.gov/?term=new+horizons+%5Bti%5D&timeline=expanded&sort=pubdate&size=200>

1. Apply a health equity lens in your clinical practice & research

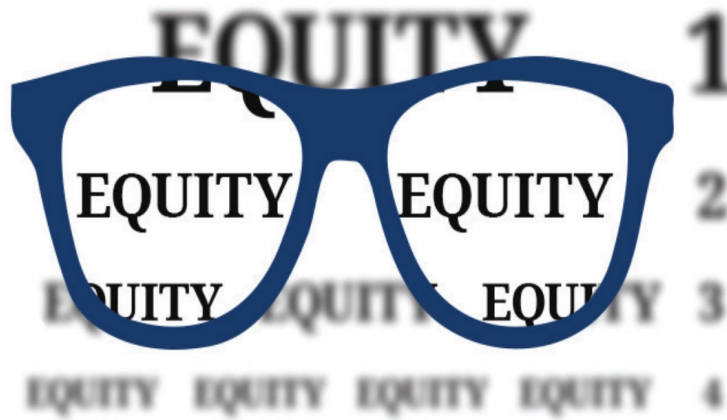


AMA, organizations launch effort to apply equity lens to patient care



May 19, 2022. CHICAGO — Building on a shared commitment to eliminating health inequities, the American Medical Association (AMA) in collaboration with Brigham and Women's Hospital and the Joint Commission today announced the creation of a learning network designed to help hospital systems apply an equity lens to all aspects of quality and safety practices— with a goal of improving health outcomes for historically marginalized populations.

To achieve better results from our health disparities work, We first need to apply a Health Equity Lens

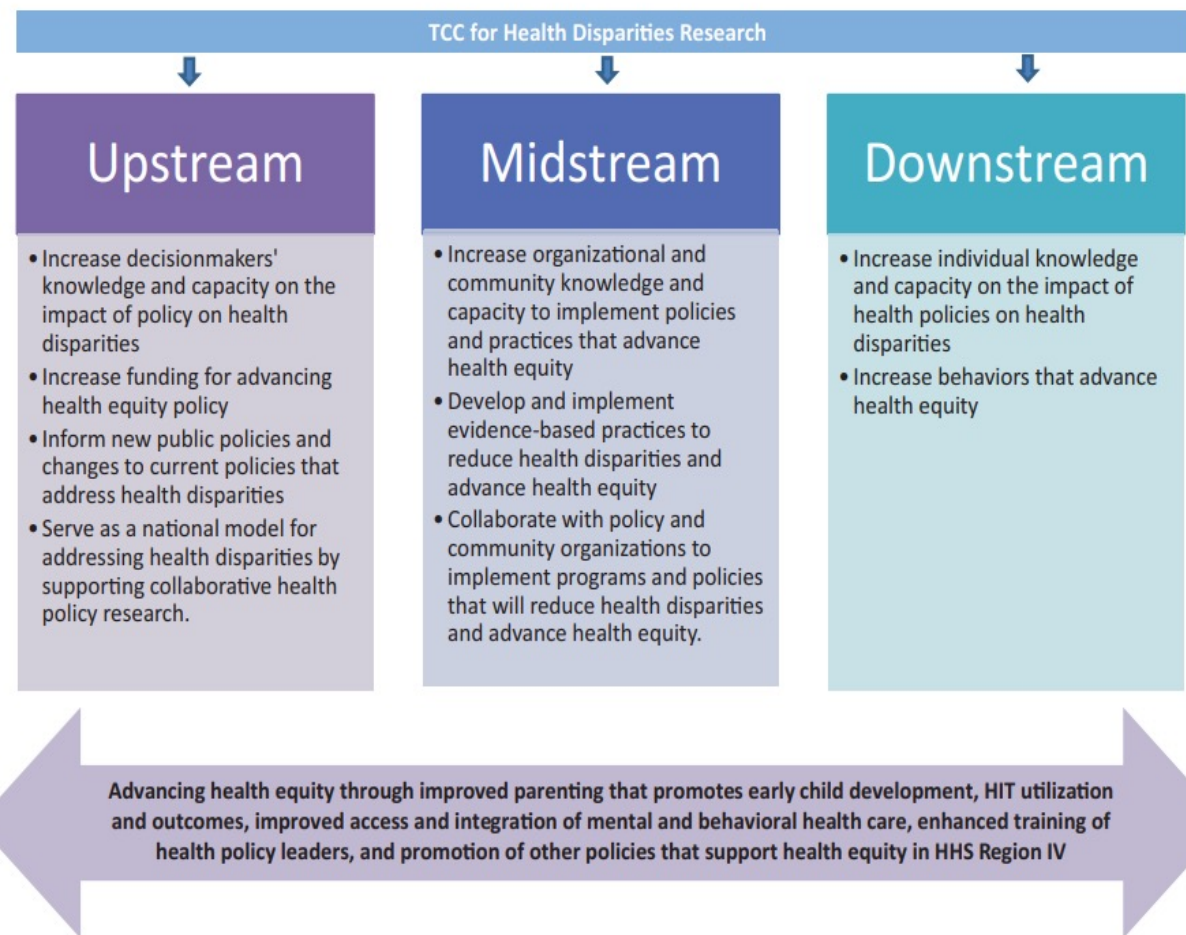
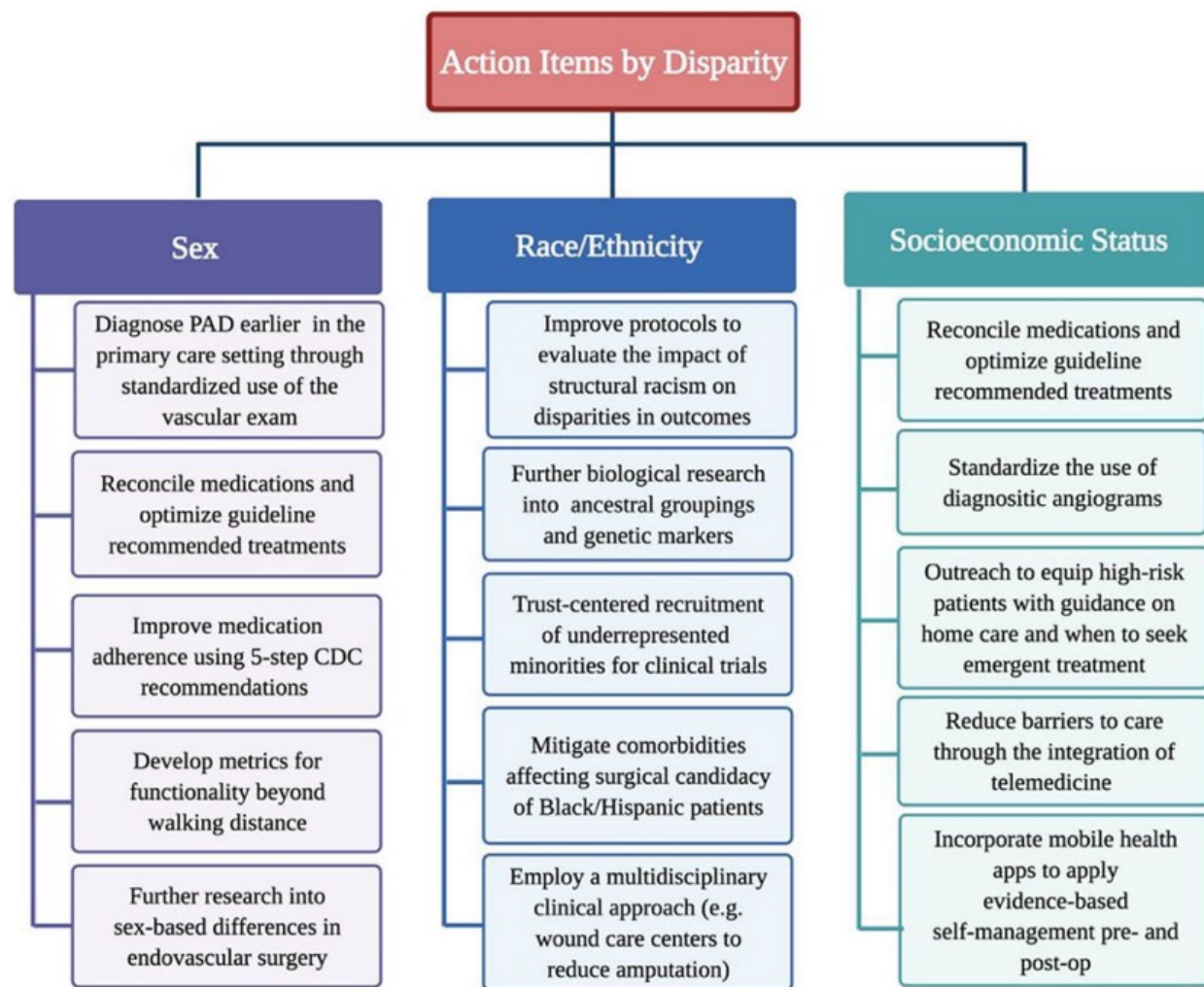


The **Equity Lens** is like a pair of glasses. It helps us see things from a new perspective and helps us to be more effective in our everyday work by getting a clearer focus and a more complete view of equity & inclusion.

- Consider how racism & other forms of discrimination unfairly disadvantage people and lead to social and health inequities.
- Emphasize the value of ensuring that everyone has an equal opportunity for health and that reducing disparities contributes to the common good and benefits all.
- Explain that policies, programs, practices, services, and environments that support health can reduce health inequity.
- **Recognize that access to information is not enough; people need information that they can understand, use, and that is culturally and linguistically appropriate.**
- Avoid implying that a person/community/population is responsible for increased risk of adverse outcomes.
- Several other key health equity concepts are available from: **CDC Gateway for Health Communications.**

<https://amapceo.on.ca/equitystatement>

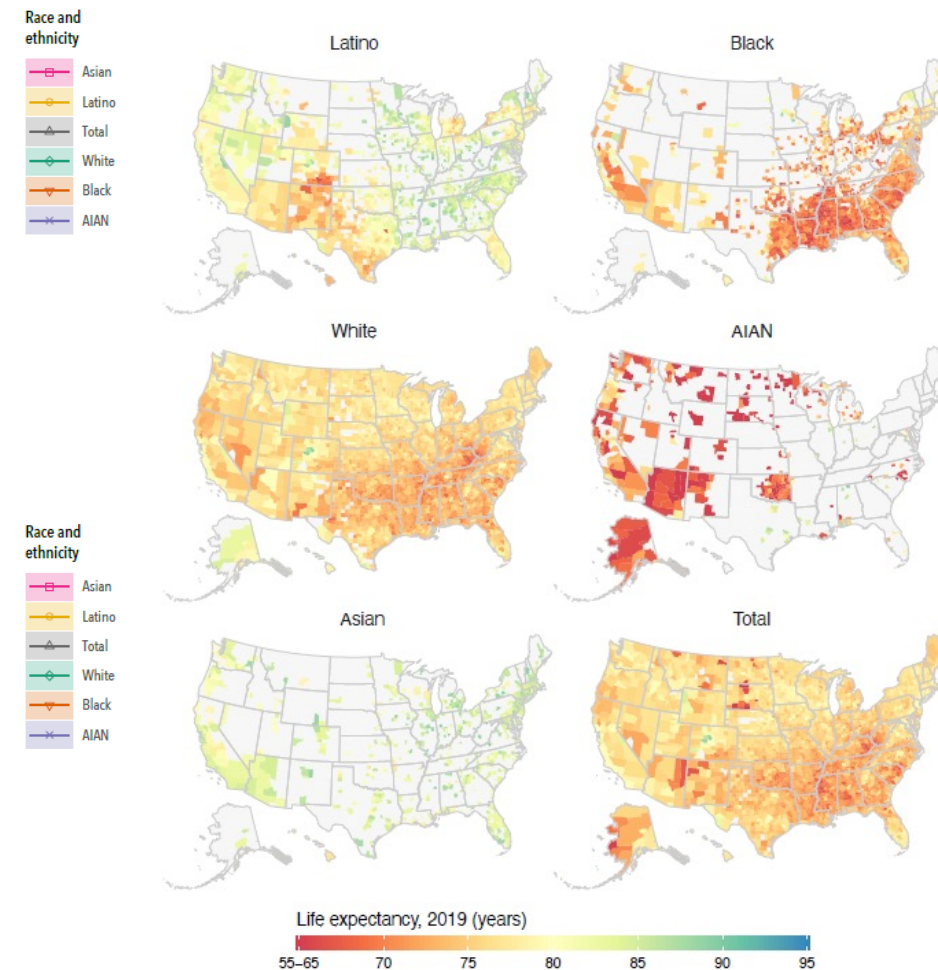
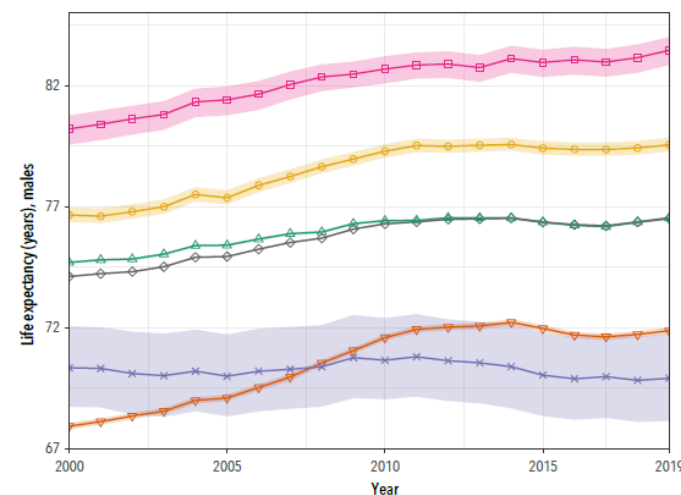
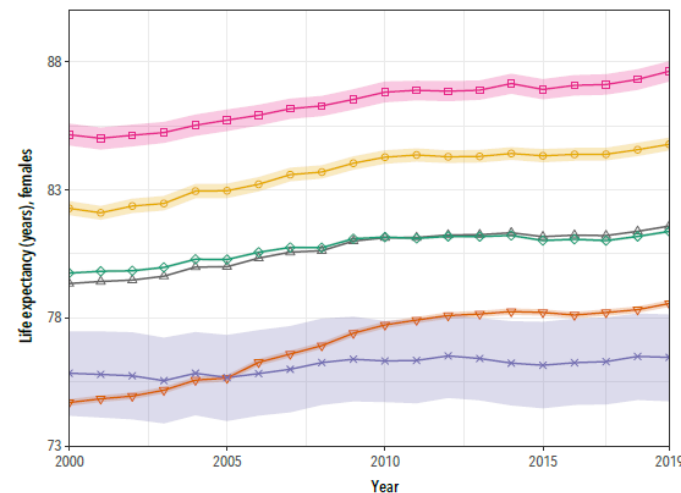
Applying a Health Equity Lens



2. Know your local-level data on health disparities

US COUNTY-LEVEL HEALTH DISPARITIES: 2000-2019

INSTITUTE FOR HEALTH METRICS AND EVALUATION
UNIVERSITY OF WASHINGTON



3. Identify and prioritize areas for reducing CVD disparities

Underlying CVD

- Ischemic heart disease
- Hypertensive heart disease
- Heart failure
- Atrial fibrillation & flutter
- Valvular heart disease
- Aortic aneurysm
- Congenital heart anomalies
- Peripheral artery disease
- Other CVD causes

Related risk factors

- High blood pressure
- Smoking
- Obesity
- Diabetes
- Dyslipidemia
- Physical inactivity
- Low fruit & veggie intake
- Air pollution
- Other CV risk factors

4. Implement evidence-based interventions

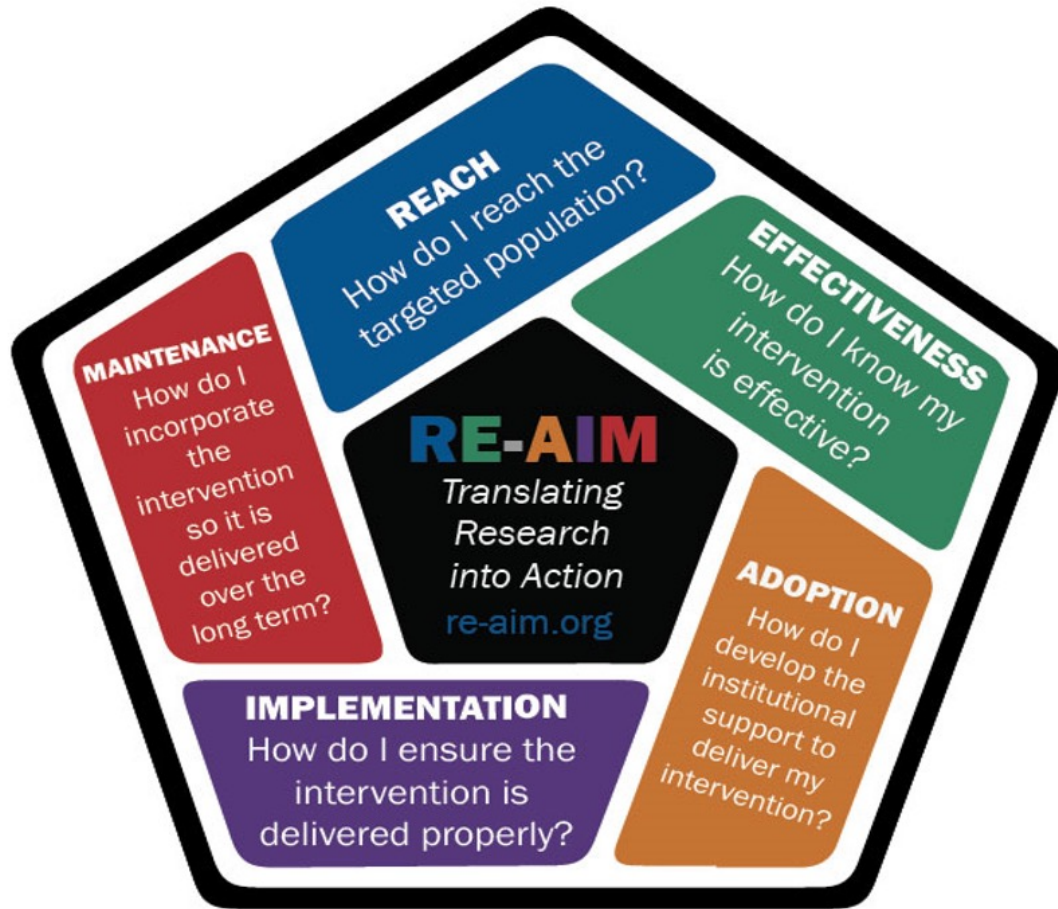
Importance of Implementation Science in Efforts to Address Disparities

Establishing **efficacy & effectiveness** of an innovation to tackle CVD and related disparities does not guarantee its uptake into routine usage.

1. We must explicitly study the implementation of the innovation.
2. We must also identify the barriers and facilitators of sustained uptake.
3. We must understand the contexts within which the innovation will be accepted, adopted or adapted, and used as intended with high fidelity.
4. We must also assess and ensure availability, access, affordability, and broad reach for the intended population.
5. We must study how to scale up what works and learn from what doesn't.

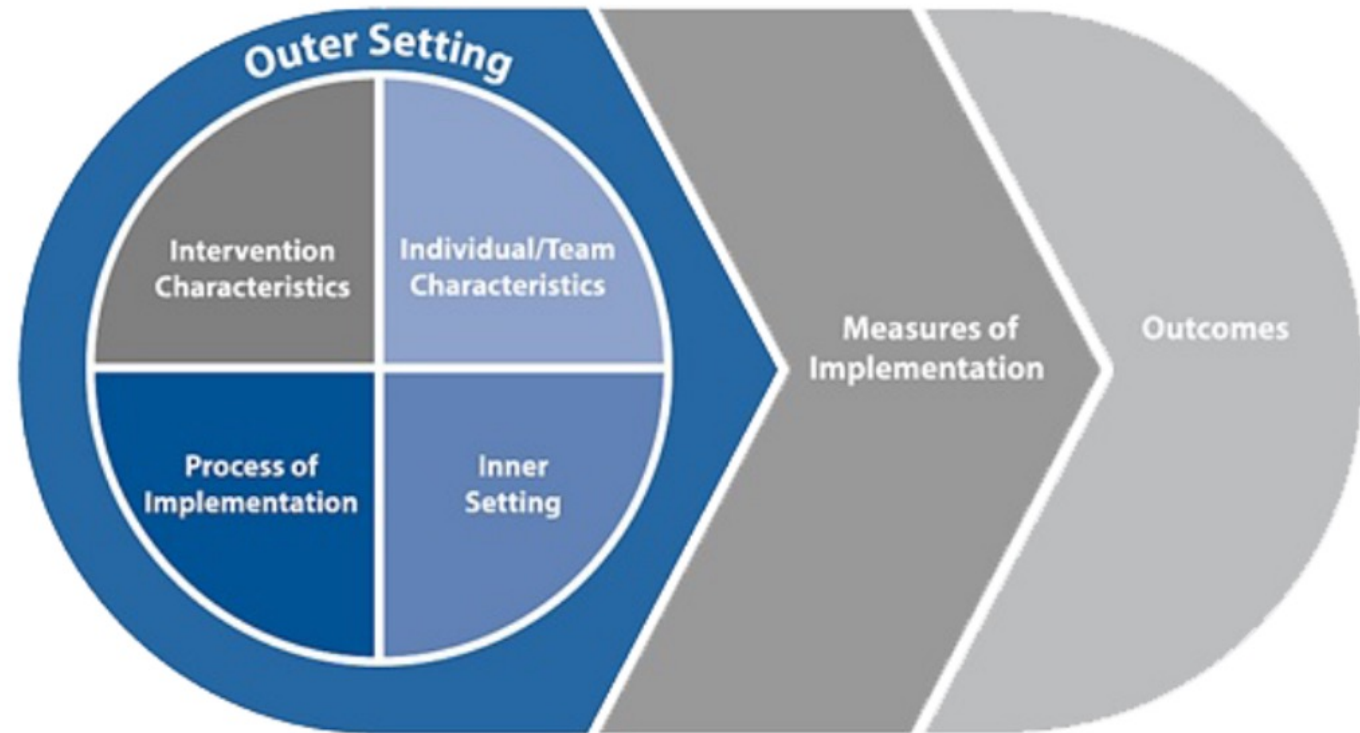
Commonly Used Models & Frameworks in Implementation Science

RE-AIM Framework

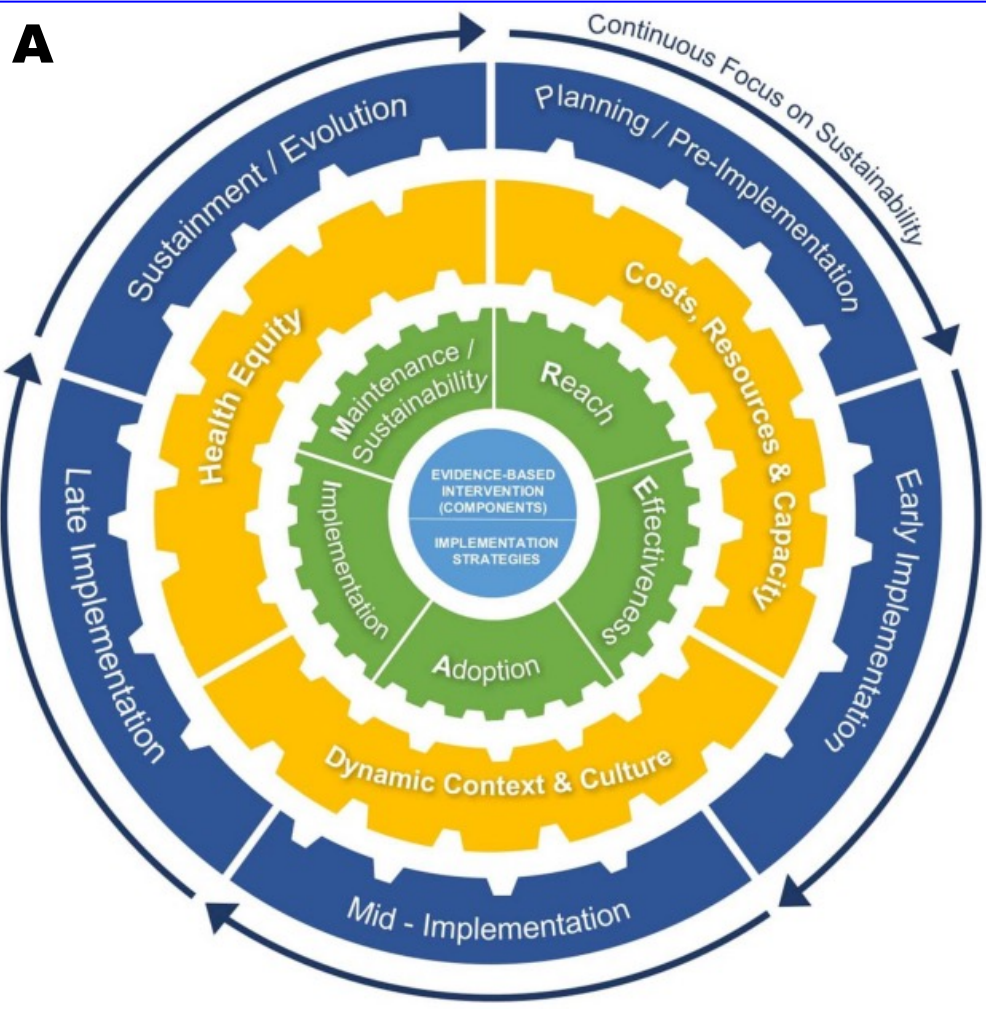


CFIR-PR

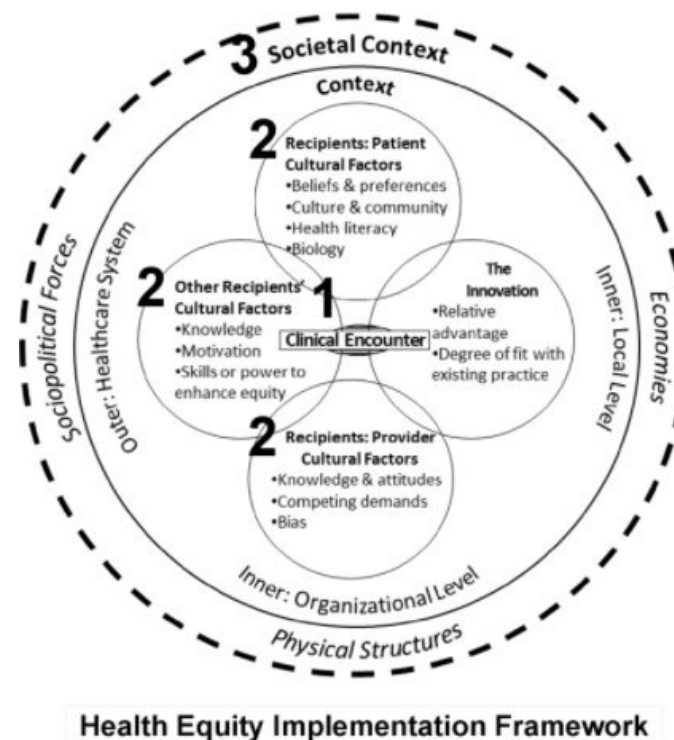
Consolidated Framework for Implementation Research, modified for studying Process Redesign



Examples of Health Equity-Implementation Frameworks



B Assess these 3 domains in your implementation assessments of barriers / facilitators to better capture what may be driving disparities in care



1	Clinical encounter between patient and provider (patient-provider interaction)	<ul style="list-style-type: none"> • Patient rating about: Interpersonal Processes of Care Survey[39] • Experiences of Discrimination Scale[76] • Recorded using audiotapes[39] 	Sample Methods & Measures
2	<ul style="list-style-type: none"> • People who administer the innovation (providers) • People you want to receive the innovation (patients) • Factors related to preferences, culture, needs, and worldview 	<ul style="list-style-type: none"> • Medical Mistrust Index[92] • Health literacy question[93] • Appropriated Racial Oppression Scale[95] • Implicit Association Test to assess implicit bias[48] 	Sample Methods & Measures
3	<ul style="list-style-type: none"> • Economic factors • Physical structures (built environment) • Sociopolitical forces (policies, procedures, social norms) 	<ul style="list-style-type: none"> • Insurance claims data • Census poverty data • Windshield survey[128] • The State-Level Racism Index[130] 	Sample Methods & Measures

Perspectives and frameworks

Activities and processes

Health equity

Social determinants of health
health equity frameworks

Evidence-based practices
to increase health equity



Sensitize

Equitable D&I of EB interventions

Operationalize

D&I of health equity interventions

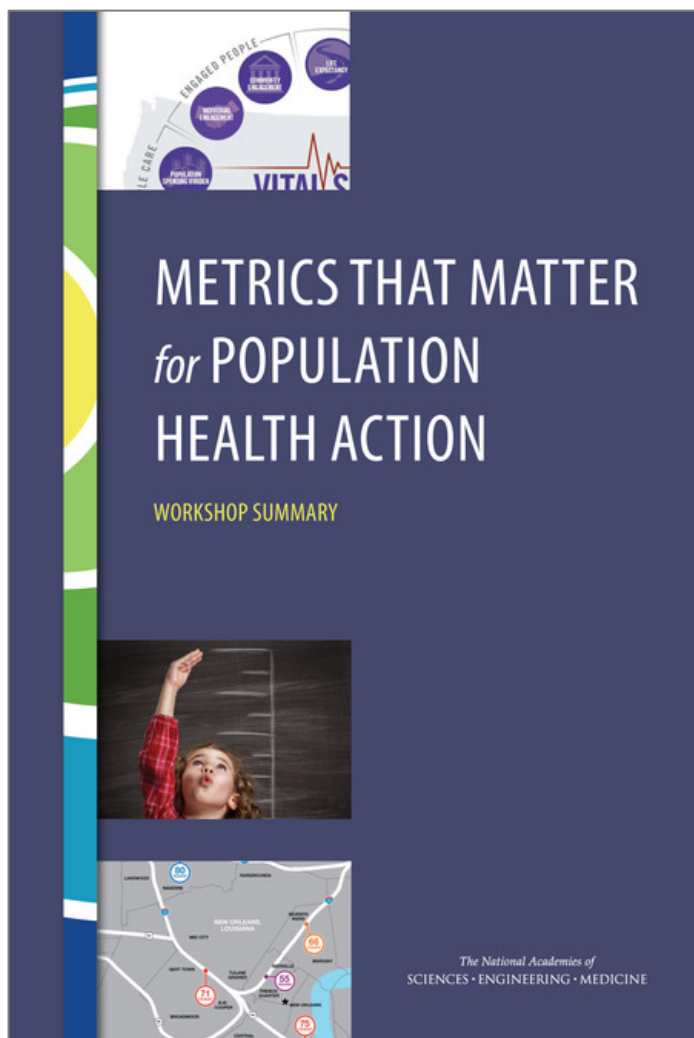
D&I frameworks
for planning and evaluation

D&I strategies
and interventions

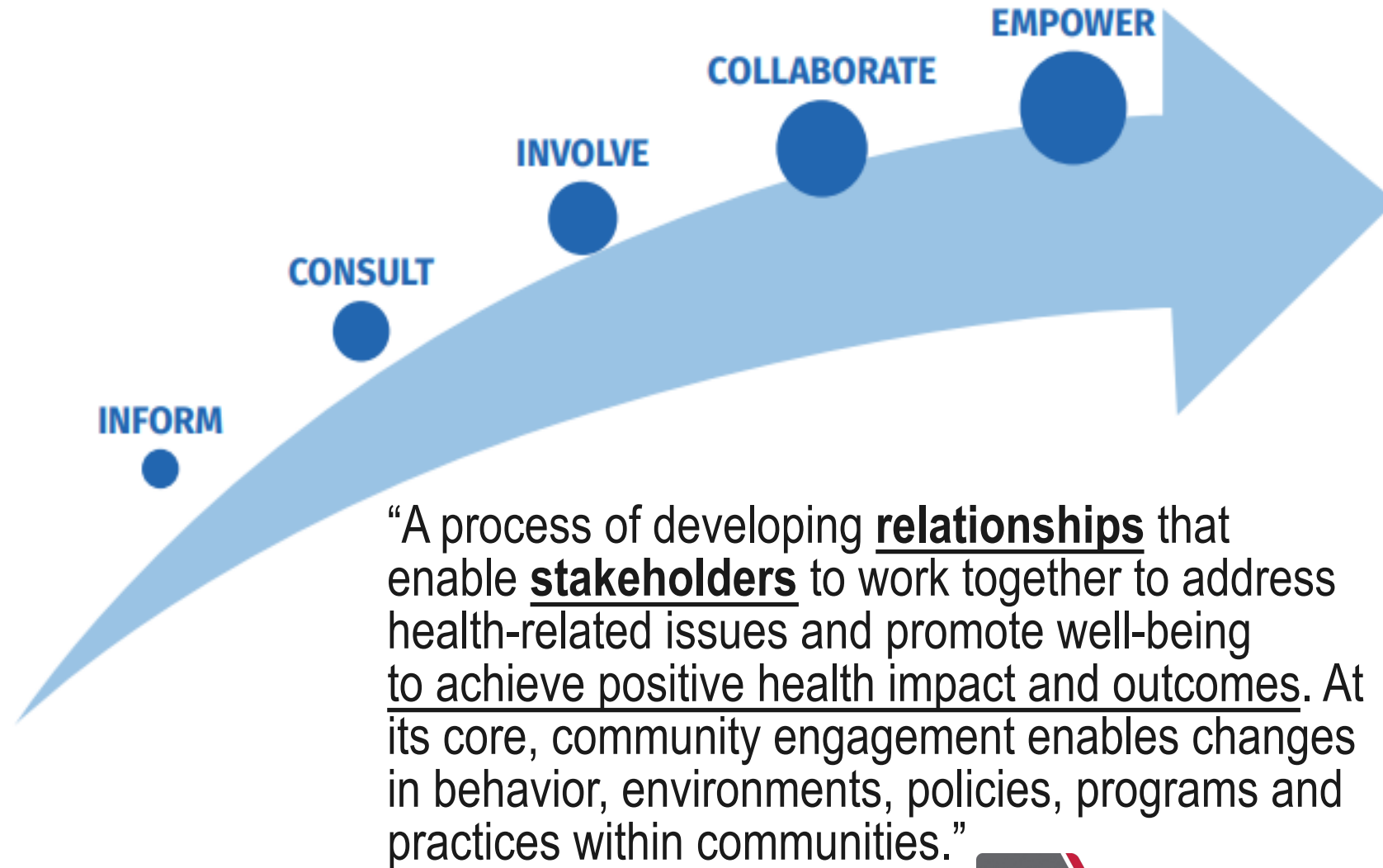


Dissemination and implementation

5. Use health equity performance metrics to assess your progress

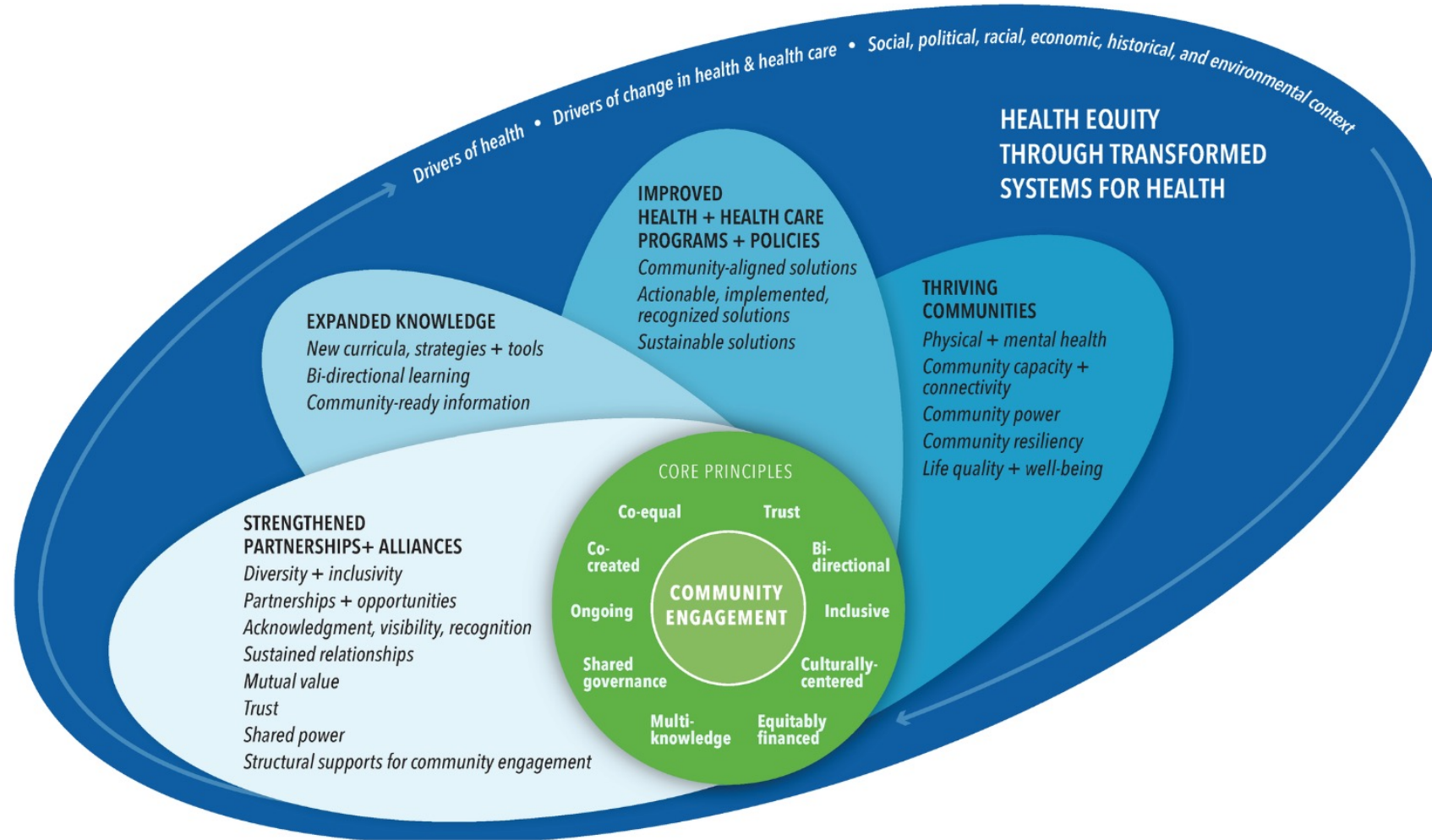


6. Undertake community engagement and outreach



WHO: <https://apps.who.int/iris/rest/bitstreams/1304287/retrieve>

Assessing Meaningful Community Engagement: A Conceptual Model to Advance Health Equity through Transformed Systems for Health



Community engagement is the linchpin or central focus of the conceptual model. Engagement of the community represents both the start and the hub of movement toward outcomes. It is only with community engagement that it is possible to achieve and accelerate progress toward the goal of health equity through transformed systems for health.

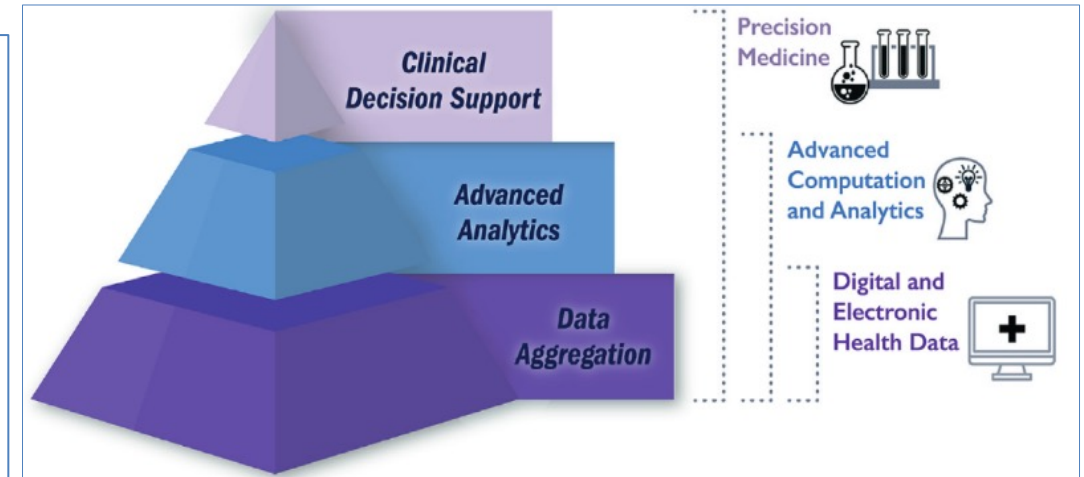
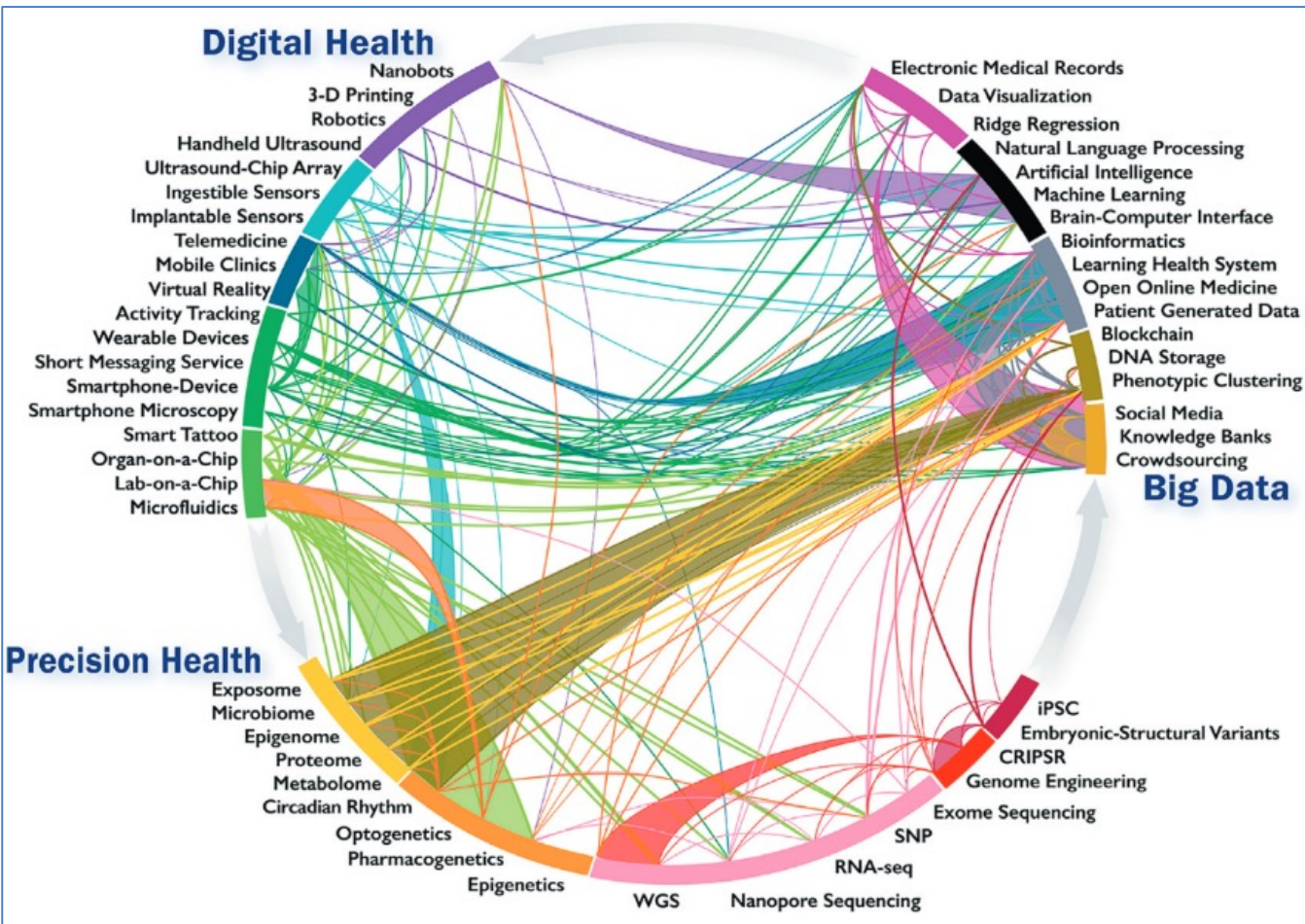
7. Bring healthcare to the community through use of Mobile and Digital Health and Advanced Health Informatics



UAB's NIH-Supported New Research Focus Areas

1. Disruptive Technology Empowering Precision Health (**D-TECH**)
2. Health Equity
3. I-4ward (Infection, Inflammation, Immunity, and Immuno-Therapy)
4. Brain Health and Disease Across the Lifespan

2017 Roadmap for Innovation—ACC Health Policy Statement on Healthcare Transformation in the Era of Digital Health, Big Data, and Precision Health



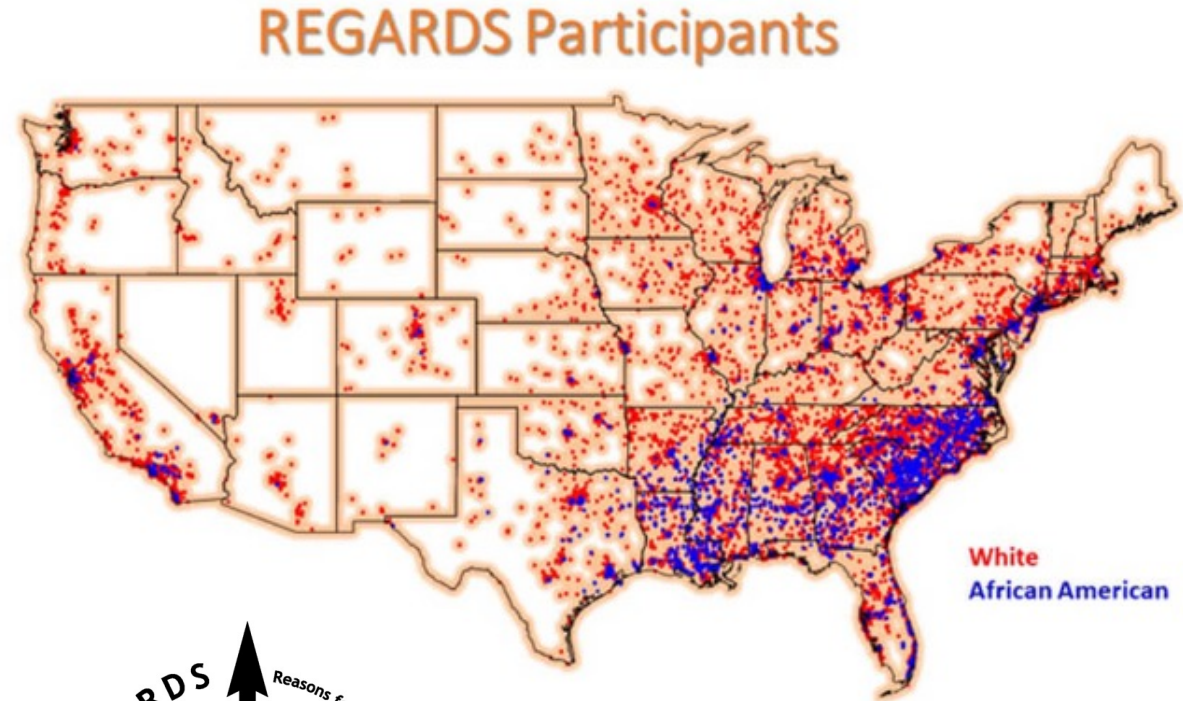
NIH Commits to Tackling Structural Racism



<https://www.nih.gov/ending-structural-racism>

NIH Director's Blog Highlights Importance REGARDS Study

To Prevent a Stroke, Household Chores and Leisurely Strolls May Help



REGARDS Principal Investigators



Suzanne Judd,
PhD



Jennifer Manly,
PhD



Mary Cushman,
MD

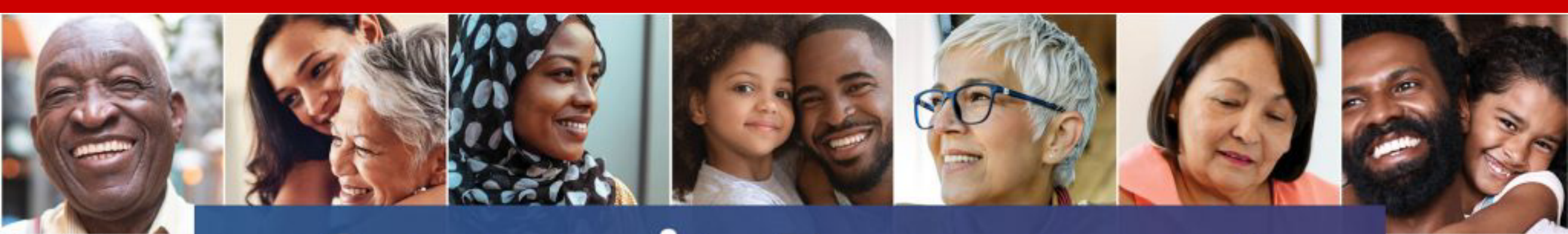


Virginia Howard,
PhD

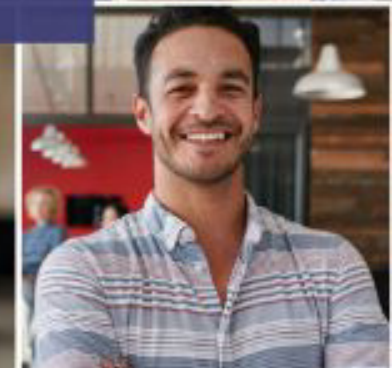
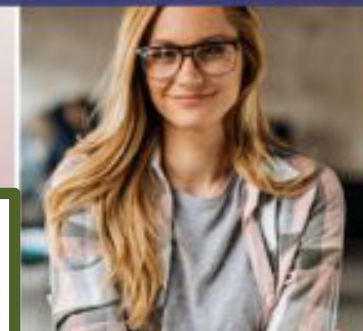
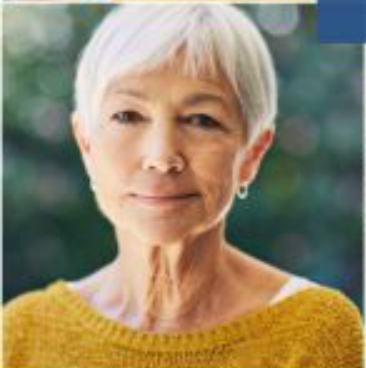
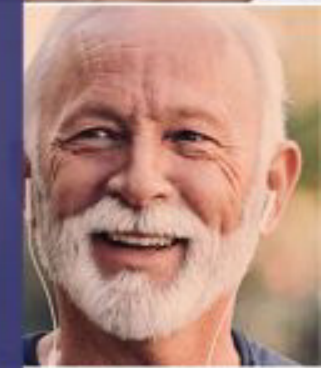


George Howard,
DrPH





Community Engagement Alliance (CEAL) Against COVID-19 Disparities



Mona Fouad, M.D., MPH



Robert P. Kimberly, M.D.



Andrea Cherrington, M.D.



Suzanne Judd, Ph.D.

<https://sites.uab.edu/ceal/about/>

Charting new horizons for advancing cardiovascular health equity.

1. Apply a health equity lens in clinical and public health practice & research.
2. Know your local-level data on health disparities and act on it for change.
3. Identify priority areas for reducing CVD disparities.
4. Implement evidence-based interventions.
5. Use health equity performance metrics to assess your progress.
6. Undertake community engagement and bi-directional outreach.
7. Bring healthcare to the community through use of Mobile and Digital Health and Advanced health Informatics.

Conclusions

1. CVD disparities are real. In most instances over the past 10-30 years, disparities have shown little detectable change.
2. All of us can play important roles in reversing current trends and taking steps to reduce and eliminate disparities.
3. Seven insights have been suggested for tackling disparities to make substantive progress toward cardiovascular health equity.
4. **Active engagement and partnerships with community** stakeholders, clinicians, public health experts, and policymakers are critical.
5. Strong institutional leadership support for diversity and inclusion and a commitment to eliminate disparities are needed.



National Heart, Lung,
and Blood Institute

**Advancing science.
Improving health.**

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www.nhlbi.nih.gov