Continuum 2024 Conference

The Importance of Geo-coding Social Determinants of Health: A Health Equity Science Perspective

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AGENDA

- Background: *CORE Health Equity Science and Intervention Framework*
- Health Equity Science Principles
- Health Equity Intervention and Action Principles
- Bringing Science and Intervention Together in the Context of Geo-coding SDOH
CDC’s CORE Commitment to Health Equity

**Cultivate** comprehensive health equity science
- CDC embeds health equity principles in the design, implementation, and evaluation of our research, data, and surveillance strategies

**Optimize** interventions
- CDC uses scientific, innovative, and data-driven strategies that address policy and systemic factors that impact health outcomes and address drivers of health disparities

**Reinforce** and expand robust partnerships
- CDC seeks out and strengthens sustainable multi-level, multi-sectoral and community partnerships to advance health equity

**Enhance** capacity and workforce engagement
- CDC builds internal capacity to cultivate a multi-disciplinary workforce and more inclusive climates, polices, and practice for broader public health impact
Health Equity Science Principles
Background on Health Equity Science Principles

Why is science important for achieving equity?

- CDC Vision: Equitably protecting health, safety, and security
- Science is the cornerstone of public health and science that intentionally generates knowledge needed to advance equity can support just change.

Who is it for?

- The health equity science principles were initially developed for CDC staff but could be valuable and impactful for all public health workers

How is it being used at CDC?

- Embedding health equity science into the scientific process and programmatic work
Health Equity Science

Health equity science investigates patterns and underlying contributors to health inequities and builds an evidence base that can guide action across the domains of public health program, surveillance, policy, communication, and scientific inquiry to move toward eliminating, rather than simply documenting, inequities.

https://www.cdc.gov/healthequity/core/index.html
Health Equity Science Principles

- Conduct **health equity science for action**
- Emphasize **drivers** of inequity
- Clarify uses of **race and ethnicity**
- Use appropriate **measures** of disparity
- Promote the visibility of **groups that might be inadequately represented**
- Address the **contexts that contribute to health inequities**

Recognize that equity is essential for a thriving and just society

Leveraging health equity science to help build an evidence base on the impact of health equity programs and policy interventions

Engage the community

Apply an equity lens throughout the scientific process

Use conceptual models/frameworks that recognize structural and social determinants of health as root causes and drivers of inequity

Embody antiracism by naming and examining the health impacts of racism

Identify and evaluate interventions to eliminate racial inequities

Address discrimination, stigma, and systems of oppression that contribute to health inequities

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CDC’s Health Equity Science Principles

- Conduct health equity science for action
- Pursue scientific questions that guide action across public health domains to move toward **eliminating**, rather than simply documenting, inequities
- **Evaluate impact** and use lessons learned to guide future health equity priorities
Health Equity Science for Action

AIDS Behav. Author manuscript; available in PMC 2023 Sep 1.

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AIDS Behav. 2022 Sep; 26(9): 2941–2953.

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HIV Care Outcomes in Relation to Racial Redlining and Structural Factors Affecting Medical Care Access Among Black and White Persons with Diagnosed HIV—United States, 2017

J. Logan,¹ Nicole Crepaz,¹ Feijun Luo,² Xueyuan Dong,³ Zanetta Gant,¹ Allison Ertl,⁴ Candace Girod,⁴ Nimeshkumar Patel,² Chan Jin,³ Alexandra Balaji,¹ and Patricia Sweeney¹
CDC’s Health Equity Science Principles

Emphasize drivers of inequity

- Clearly state whether the intent is to examine markers of inequity or drivers of inequity
  - **Markers** are descriptors of sub-populations experiencing a health inequity
    - Examples are race, ethnicity, and nationality
  - **Drivers** are factors that create, perpetuate, or exacerbate a health inequity
    - Examples are racism and other systems of oppression and discrimination, residential segregation, inequity in income, and inequity in health insurance coverage
Emphasizing Drivers (Structural and Social Determinants of Health) over Markers


Area deprivation index and segregation on the risk of HIV: a U.S. Veteran case-control study

Abiodun O. Oluymoi, a,b,c,k Angela L. Mazul, c,d,k Yongquan Dong, e Donna L. White, b,e,f,g Christine M. Hartman, e Peter Richardson, e,g Wenyaw Chan, h Jose M. Garcia, l Jennifer R. Kramer, b,e,g and Elizabeth Chiao l,*
CDC’s Health Equity Science Principles

- Be explicit about the purpose, methods, and interpretation of results when including race or ethnicity in scientific activities.
- Include mention of racism (particularly structural racism) and the unfair distribution of social determinants of health as underlying causes of racial and ethnic inequities.
Clarifying uses of race and ethnicity

doi: 10.1007/s40615-022-01456-7 [Epub ahead of print]

A Census Tract–Level Examination of Diagnosed HIV Infection and Social Vulnerability among Black/African American, Hispanic/Latino, and White Adults, 2018: United States

Zanetta Gant, André Dailey, Xiaohong Hu, Shacara Johnson Lyons, Amanda Okello, Faith Elenwa, and Anna Satcher Johnson
In evaluating interventions and tracking progress to eliminate health inequities, use appropriate measures of disparity:

- Consider using both relative measures (e.g., rate ratios) and absolute measures (e.g., rate differences).

- Explain the choice of measures, including benefits and limitations, and the selection of methods for examining changes in disparities over time.

**CDC’s Health Equity Science Principles**
Appropriate Measures of Disparity

County-Level Socioeconomic Disparities in Use of Medical Services for Management of Infections by Medicare Beneficiaries With Diabetes—United States, 2012

Chang, Man-Huei MPH; Beckles, Gloria L. MD, MSc; Moonesinghe, Ramal PhD; Truman, Benedict I. MD, MPH

Author Information

CDC’s Health Equity Science Principles

- For populations at risk of being inadequately represented because of social marginalization or exclusion, **actively ensure visibility** in data collection, data reporting, interpretation of findings and limitations
- **Raise awareness** of and support the need to expand data collection and **involve communities** in disaggregation and interpretation decisions
Promoting Visibility of Groups


Geographic Differences in Social Determinants of Health Among US-Born and Non-US-Born Hispanic/Latino Adults With Diagnosed HIV Infection, United States and Puerto Rico, 2017

Zanetta Gant, PhD, MS,1 Shacara Johnson Lyons, MSPH,1 Chan Jin, PhD,2 André Dailey, MSPH,1 Ndidi Nwangwu-Ike, MPH,1 and Anna Satcher Johnson, MPH1
Address the contexts that contribute to health inequities

• Apply understanding of the societal and environmental contexts that contribute to health inequities
• Address the structural and social factors that impact health and avoid exclusive focus on individual behaviors
Addressing Contexts

doi: [10.1007/s10900-023-01191-y](https://doi.org/10.1007/s10900-023-01191-y) [Epub ahead of print]

A Census Tract-Level Examination of HIV Care Outcomes and Social Vulnerability Among Black/African American, Hispanic/Latino, and White Adults in the Southern United States, 2018

Faith Elenwa, Zanetta Gant, Xiaohong Hu, and Anna Satcher Johnson
A health equity science approach should be applied throughout every phase of the lifecycle using these guiding principles:

- Conduct Health Equity Science for action
- Emphasize drivers of inequity
- Clarify use of race and ethnicity in scientific work
- Use appropriate measures of disparity
- Promote visibility of inadequately represented groups
- Address contexts that contribute to inequities
Health Equity Intervention & Action Principles
A health intervention is generally considered a public health program or initiative designed to have a positive impact on a health problem or condition.

Focused intervention strategies are needed to address structural and social determinants of health and other equity considerations.

Systems changes are often needed to strengthen organizational infrastructure, capacity, and program processes to ensure continuous positive progress towards achieving health equity, in the broader context of equity.
Health Equity Intervention & Action Principles
Conclusion
Bringing Science and Intervention Together

The Health Equity Science Principles have direct application in all stages of development of scientific projects and dissemination products.

The Health Equity Intervention and Action Principles offer a comprehensive approach to strengthen organizations and interventions.

These principles may be used together for organizations to establish a solid foundation for the advancement of health equity through science and interventions.
Bringing Science and Intervention Together

How might the CDC’s health equity science and health equity intervention and action principles position you to advance HIV and AIDS care through research and policy?
Key Resources – Health Equity Science


- CDC’s Guiding Principles to Promote an Equity-Centered Approach to Public Health Communication. Prev Chronic Dis 2023;20:230061. DOI: http://dx.doi.org/10.5888/pcd20.230061


- Getting Data Right - and Righteous to Improve Hispanic or Latino Health. J Healthc Sci Humanit. 2016 Fall;6(3):60-83. PMID: 29416934; PMCID: PMC5798620

Key Resources - Geocoding

- HIV Care Outcomes in Relation to Racial Redlining and Structural Factors Affecting Medical Care Access Among Black and White Persons with Diagnosed HIV-United States, 2017

- Area deprivation index and segregation on the risk of HIV: a U.S. Veteran case-control study

- A Census Tract-Level Examination of Diagnosed HIV Infection and Social Vulnerability among Black/African American, Hispanic/Latino, and White Adults, 2018: United States

- County-Level Socioeconomic Disparities in Use of Medical Services for Management of Infections by Medicare Beneficiaries With Diabetes-United States, 2012

- Geographic Differences in Social Determinants of Health Among US-Born and Non-US-Born Hispanic/Latino Adults With Diagnosed HIV Infection, United States and Puerto Rico, 2017

- A Census Tract-Level Examination of HIV Care Outcomes and Social Vulnerability Among Black/African American, Hispanic/Latino, and White Adults in the Southern United States, 2018
THANK YOU!

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www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
For Q and A: Bringing Science and Intervention Together

How might the CDC’s health equity science and health equity intervention and action principles position you to advance HIV and AIDS care through research and policy?