



AGENCY FOR HEALTHCARE RESEARCH AND QUALITY



AHRQ National Webinar on Advancing Digital Healthcare Equity: Navigating Disparities in the Digital Age

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December 3, 2024

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Agenda



- Welcome and Introductions
- Presentations
- Q&A Session With Presenters
- Instructions for Obtaining CME Credits

Note: You will be notified by email once the slides and recording are available.

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Presenter and Moderator Disclosures



Meagan T. Khau, M.H.A.
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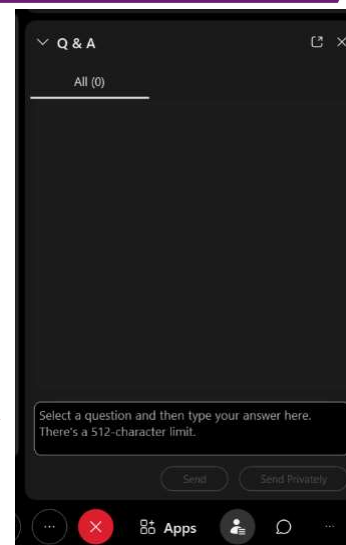
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How To Submit a Question



- At any time during the presentation, type your question into the “Q&A” section of your WebEx Q&A panel.
- Please address your questions to “All Panelists” in the drop-down menu.
- Please include the presenter’s name or their presentation order number (first, second, or third) with your question.
- Select “Send” to submit your question to the moderator.
- Questions will be read aloud by the moderator.



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Learning Objectives



At the conclusion of this webinar, participants should be able to do the following:

1. Discuss CMS initiatives to improve health equity data collection and use to identify areas of disparities.
2. Describe how AHRQ's evidence- and consensus-based Digital Health Equity Framework can improve outcomes while reducing disparities.
3. Identify how artificial intelligence model creation can introduce bias and learn more about ASTP's Health Equity by Design efforts.

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AGENCY FOR HEALTHCARE RESEARCH AND QUALITY



Advancing Health Equity Through Data

Meagan T. Khau, M.H.A.

Director, Data Analytics & Research Group
Office of Minority Health, Centers for Medicare & Medicaid Services

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CMS Office of Minority Health



The Centers for Medicare & Medicaid Services (CMS) is the largest provider of health insurance in the United States, responsible for insuring more than 150 million individuals supported by CMS programs (Medicare, Medicaid, the Children’s Health Insurance Program, and the Health Insurance Marketplaces).

The CMS Office of Minority Health (CMS OMH) is one of eight offices of minority health within the U.S. Department of Health and Human Services. CMS OMH works with local and federal partners to eliminate health disparities while improving the health of all minority populations.



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What Drives Our Data Initiatives?

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Executive Orders Focus on Data



- **EO 13985: Advancing Racial Equity and Support for Underserved Communities Through the Federal Government**
 - ▶ **Section 4(a)—Identifies methods to assess equity**
 - “Assist agencies in assessing equity with **respect to race, ethnicity, religion, income, geography, gender identity, sexual orientation, and disability...**”
 - Emphasizes the need to take actions to collect demographic data to fully assess impact of health equity responses and extent of existing health disparities
 - ▶ **Section 9(a) Establishes a workgroup to gather necessary data**
 - “Many Federal datasets are not disaggregated by **race, ethnicity, gender, disability, income, veteran status, or other key demographic variables.** This lack of data has cascading effects and impedes efforts to measure and advance equity.”
 - Emphasizes the need to gather data to promote equity
- **EO 14031: Advancing Equity, Justice, and Opportunity for Asian Americans, Native Hawaiians, and Pacific Islanders**
 - Expand the collection and use of disaggregated data at the Federal, State, and local level in AA and NHPH communities, and facilitate improved research on policy and program outcomes for AA and NHPH communities

EO – 13985 - <https://www.federalregister.gov/documents/2021/01/25/2021-01753/advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government>
 EO 14031 - <https://www.federalregister.gov/documents/2021/06/03/2021-11792/advancing-equity-justice-and-opportunity-for-asian-americans-native-hawaiians-and-pacific-islanders>

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CMS Strategic Plan



<https://www.cms.gov/about-cms/what-we-do/cms-strategic-plan>

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CMS Frameworks



CMS Framework for Health Equity 2022–2032


Definition of Health Equity
The attainment of the highest level of health for all people, where everyone has a fair and just opportunity to attain their optimal health regardless of race, ethnicity, disability, sexual orientation, gender identity, socioeconomic status, geography, preferred language, or other factors that affect access to care and health outcomes. CMS is working to advance health equity by designing, implementing, and operationalizing policies and programs that support health for all the people served by our programs, eliminating unnecessary differences in health outcomes experienced by people who are disadvantaged or underserved, and providing the care and support that our enrollees need to thrive.

CMS Framework for Health Equity Priorities

-  **Priority 1:** Expand the Collection, Reporting, and Analysis of Standardized Data
-  **Priority 2:** Assess Causes of Disparities Within CMS Programs, and Address Inequities in Policies and Operations to Close Gaps
-  **Priority 3:** Build Capacity of Health Care Organizations and the Workforce to Reduce Health and Health Care Disparities
-  **Priority 4:** Advance Language Access, Health Literacy, and the Provision of Culturally Tailored Services
-  **Priority 5:** Increase All Forms of Accessibility to Health Care Services and Coverage

To read the CMS Framework for Health Equity 2022-2032, visit go.cms.gov/framework.


The CMS Office of Minority Health offers health equity technical assistance resources, aimed to help health care organizations take action against health disparities. If you are looking for assistance, visit go.cms.gov/omb or email HealthEquityTA@cms.hhs.gov.




Priority 1: Expand the Collection, Reporting, and Analysis of Standardized Data

Priority 2: Increase Collection and Use of Standardized Data to Improve Health Care for Rural, Tribal, and Geographically Isolated Communities

CMS Framework for Advancing Health Care in Rural, Tribal, and Geographically Isolated Communities



NOVEMBER 2022
GO.CMS.GOV/RURALHEALTH



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CMS National Quality Strategy 2024



Quality Mission: To achieve optimal health and well-being for all individuals.

Quality Vision: CMS, a trusted partner, is shaping a resilient, high-value American healthcare system that delivers high-quality, safe, and equitable care for all.

CMS National Quality Strategy Goals



Equity
Advance health equity and whole-person care

Engagement
Engage individuals and communities to become partners in their care

Safety
Achieve zero preventable harm

Resiliency
Enable a responsive and resilient healthcare system to improve quality

Outcomes
Improve quality and health outcomes across the care journey

Alignment
Align and coordinate across programs and care settings


Interoperability
Accelerate and support the transition to a digital and data-driven health care system

Scientific Advancement
Transform health care using science, analytics, and technology

<https://www.cms.gov/files/document/quality-motion-cms-national-quality-strategy.pdf>


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CMS Interoperability




Our Mission—To promote the secure exchange, access, and use of electronic health information to support better informed decision making and a more efficient healthcare system.

Our Vision—A secure, connected healthcare system that empowers patients and their providers to access and use electronic health information to make better informed and more efficient decisions.




Patients & Caregivers

Have access and use of their complete electronic health record (EHR), confidence that their care providers are communicating and coordinating their care and can engage in their own care in a more meaningful way.




Providers

Have easy access to the right patient health information at the right time to facilitate safer, better coordinated, and more efficient care.



Payers

Facilitate care coordination through the exchange of electronic health information and can make timely coverage decisions based on current and accurate information.




Researchers & Innovators

Have streamlined access to recent data to support groundbreaking studies and the development of new applications and technology.

<https://www.cms.gov/priorities/key-initiatives/burden-reduction/interoperability/cms-interoperability>


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Demographic and Social Determinants of Health Data Collection

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Race and Ethnicity Data Collection at Disaggregated Level



- CMMI Models—Started January 1, 2023—All CMMI model participants are required to report race and ethnicity data at the USCDI standards.
- 2011 HHS Data Standards
 - ▶ Post-Acute Care Settings
 - October 2022—Started to collect race and ethnicity data in long-term care and inpatient rehabilitation facilities.
 - January 2023—Started to collect race and ethnicity data in home health agencies.
 - October 2023—Started to collect race and ethnicity data in skilled nursing facilities.
 - ▶ Medicare Part C/D Enrollment Form
 - ▶ Surveys conducted by CMS

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Revisions to Statistical Policy Directive No. 15: Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity (New)

- Effective March 28, 2024
- Using **one combined question for race and ethnicity**, and encouraging respondents to select as many options as apply to how they identify.
- **Adding Middle Eastern or North African as a new minimum category.** There are now seven new sets of minimum race and/or ethnicity categories.
- **Requiring the collection of additional detail beyond the minimum required race and ethnicity categories** for most situations, to ensure further disaggregation in the collection, tabulation, and presentation of data, when useful and appropriate.
- The updated standards also include several additional updates to definitions, terminology, and guidance to agencies on the collection and presentation of data.

What is your race and/or ethnicity?
Select all that apply and enter additional details in the spaces below.

American Indian or Alaska Native – Enter, for example, Navajo Nation, Blackfeet Tribe of the Blackfeet Indian Reservation of Montana, Native Village of Barrow Inupiat Traditional Government, Nome Eskimo Community, Aztec, Maya, etc.

Asian – Provide details below.
 Chinese Asian Indian Filipino
 Vietnamese Korean Japanese
 Enter, for example, Pakistani, Hmong, Afghan, etc.

Black or African American – Provide details below.
 African American Jamaican Haitian
 Nigerian Ethiopian Somali
 Enter, for example, Trinidadian and Tobagonian, Ghanaian, Congolese, etc.

Hispanic or Latino – Provide details below.
 Mexican Puerto Rican Salvadoran
 Cuban Dominican Guatemalan
 Enter, for example, Colombian, Honduran, Spaniard, etc.

Middle Eastern or North African – Provide details below.
 Lebanese Iranian Egyptian
 Syrian Iraqi Israeli
 Enter, for example, Moroccan, Yemeni, Kurdish, etc.


Native Hawaiian or Pacific Islander – Provide details below.
 Native Hawaiian Samoan Chamorro
 Tongan Fijian Marshallese
 Enter, for example, Chuukese, Palauan, Tahitian, etc.

White – Provide details below.
 English German Irish
 Italian Polish Scottish
 Enter, for example, French, Swedish, Norwegian, etc.

<https://www.govinfo.gov/content/pkg/FR-2024-03-29/pdf/2024-06469.pdf>

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Marketplace Sexual Orientation and Gender Identity (SOGI) Questions



Since November 1, 2023, the Marketplace has asked three new SOGI questions on all applications starting with Plan Year 2024.


Purpose:

- Identify health disparities in access to coverage
- Improve Marketplace consumer experience by allowing consumers to attest in a way that better reflects and affirms their identities

Category	Question	Responses
Sex Assigned at Birth	What was [First Name]'s sex assigned at birth? <i>You can find this on an original birth certificate or similar document. (optional, single select)</i>	<ul style="list-style-type: none"> •Female •Male •A sex that's not listed: [free text] •Not sure •Prefer not to answer
Gender Identity	What's [First Name]'s gender identity? <i>(optional, single select)</i>	<ul style="list-style-type: none"> •Female •Male •Transgender female •Transgender male •A gender identity that's not listed: [free text] •Not sure •Prefer not to answer
Sexual Orientation	What's [First Name]'s sexual orientation? <i>(optional, single select)</i>	<ul style="list-style-type: none"> •Lesbian or gay •Straight •Bisexual •A sexual orientation that's not listed: [free text] •Not sure •Prefer not to answer

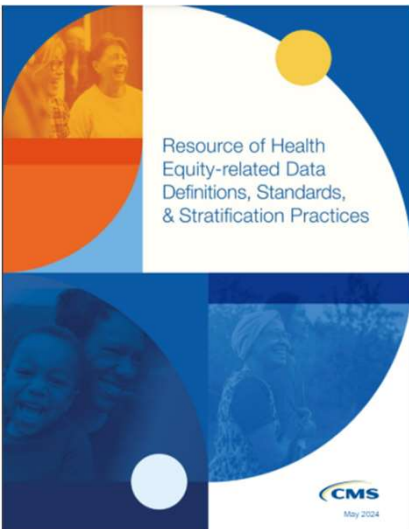
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Development of a Resource of Health Equity-Related Data Definitions, Specifications, and Stratification Practices



- **Data definitions, standards, and stratification practices for health equity-related data elements** to support the priorities of the CMS Framework for Health Equity 2022–2032 and the CMS Framework for Advancing Health Care in Rural, Tribal, and Geographically Isolated Communities
- Standardized data collection and stratification **allow for comprehensive analyses that can be combined or compared across multiple programs or initiatives**
- **Resource that can be used for internal alignment and used by external entities** to facilitate harmonization with CMS on the collection and/or stratification of sociodemographic data

<https://www.cms.gov/files/document/cms-2024-omh-data-definitions.pdf>



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Data Elements and Specifications



Nine data elements highlighted in EO 13985

- **Race and Ethnicity**
 - aligning with OMB’s revisions released on March 28, 2024
- **Gender Identity, Sex (as assigned at birth), Sexual Orientation**
 - modification of OMB Best Practices and NASEM
- **Disability Status**
 - 2011 HHS Data Standard (used on the American Community Survey)
- **Primary Language, English Language Proficiency**
 - 2011 HHS Data Standard (used on the American Community Survey)
- **Rurality/Urbanicity of Residence**
 - Core Based Statistical Areas (CBSA)—metropolitan, micropolitan, and non-CBSA
 - Rural-Urban Commuting Area Codes (RUCA Codes)—granular/zip codes level analysis

<https://aspe.hhs.gov/reports/hhs-implementation-guidance-data-collection-standards-race-ethnicity-sex-primary-language-disability-0>

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Considerations




- The **Resource of Health Equity-Related Data Definitions, Specifications, and Stratification Practice technical guide** can be used by organizations or entities that wish to harmonize with CMS when collecting, stratifying, and/or analyzing health equity-related data.
- **Specifications were selected based upon broadest applicability and feasibility** for the various collection methods and systems, as well as usage of the data.
- **Some of these standards are binding** on CMS as a federal agency (e.g., OMB race and ethnicity standards) while **others are not binding**, but CMS programs will begin **moving towards voluntary adoption** where practicable and legally permissible on the “front end” collection.
- **CMS recommends**, where applicable and appropriate, **harmonization with USCDI** standards on the “back end” to facilitate the sharing of interoperable data.
- **Many CMS programs adopted specifications prior to the development of this resource** document. Where practicable and legally permissible, some collection will align with these listed specifications over time.

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Social Determinants of Health (SDOH) Data






New SDOH Data Element Submission to USCDI Standard

-CMS OMH submitted a new SDOH data element through the ONC New Data Element and Class system, currently in v5.

-New element: "Do you need or want an interpreter to communicate with a doctor or health care staff?"


-This data element can add important context about the supports a particular patient requires to address literacy or language barriers.



Post-Acute Care Settings

Started October 2022

- Preferred Language
- Need for an Interpreter
- Health Literacy
- Social Isolation
- Transportation




CMMI Models

Started January 1, 2023—All CMMI model participants are to provide SDOH data based on USCDI standards.

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SDOH Measures



Both SDOH measures finalized for adoption into Hospital IQR program from the fiscal year (FY) 2023 IPPS rule

Voluntary reporting in 2023

Mandatory reporting beginning in CY2024 reporting period (FY 2026 payment determination)

Screening for Social Drivers of Health

- Assesses the total number of patients, aged 18 years and older, screened for social risk factors during an inpatient facility stay, or during established care in the case of dialysis facilities
- Focuses specifically on food insecurity, housing instability, transportation needs, utility difficulties, and interpersonal safety

End Stage Renal Disease Quality Incentive Program (ESRD QIP), Inpatient Psychiatric Facility Quality Reporting Program (IPF), and PPS- Exempt Cancer Hospital Quality Reporting Program (PCH)

Screen Positive Rate for Social Drivers of Health

- Structural measure
- Percentage of patients who were admitted for an inpatient facility stay, or received established care in the case of dialysis facilities, and were 18+ years old on the date of admission or established care who:
 - Were screened for all five HSRNs, **and**
 - Screened positive for one or more of the following five HRSNs: food insecurity, housing instability, transportation problems, utility difficulties, or interpersonal safety

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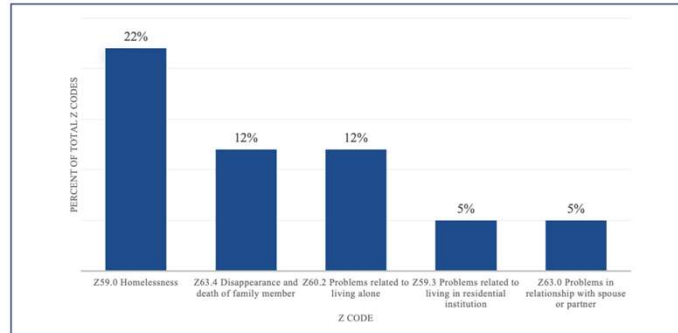
SDOH and Coding



Effective 10/1/2024—CMS finalized a change to the severity designation of the three diagnosis codes describing homelessness, reflecting the higher average resource costs of inpatient hospital cases where the patient is experiencing homelessness compared to similar cases where the patient is not experiencing homelessness.

- Codes Z59.00 (Homelessness, unspecified), Z59.01 (Sheltered homelessness), and Z59.02 (Unsheltered homelessness)

Figure 3. The Top Five Z Codes Representing the Largest Shares of All Z Code Claims, 2019.



The five Z codes that represented the largest shares of all Z code claims (N=1,262,563) in 2019:



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SDOH and Coding



- Effective 10/1/2024—CMS finalized the rule in changing the severity designation of the seven ICD-10-CM diagnosis codes that describe inadequate housing and housing instability from non-complication or comorbidity (NonCC) to complication or comorbidity (CC), based on the higher average resource costs of cases with these diagnosis codes compared to similar cases without these codes.
- The relevant codes include the following:
 - Z59.10 (Inadequate housing, unspecified);
 - Z59.11 (Inadequate housing environmental temperature);
 - Z59.12 (Inadequate housing utilities);
 - Z59.19 (Other inadequate housing);
 - Z59.811 (Housing instability, housed, with risk of homelessness);
 - Z59.812 (Housing instability, housed, homelessness in past 12 months); and
 - Z59.819 (Housing instability, housed unspecified).

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Using Z Codes Infographic—Updated in June 2023



Describes:

- What SDOH Z codes are
- How to collect and document SDOH with Z codes
- How to use these data

There are also links to key resources on coding and equity.

<https://www.cms.gov/files/document/zcodes-infographic.pdf>

USING Z CODES:
The Social Determinants of Health (SDOH) Data Journey to Better Outcomes

What are Z codes?
SDOH-related Z codes ranging from Z55-Z65 are the ICD-10-CM diagnosis codes used to document SDOH data (e.g., housing, food insecurity, transportation, etc.). SDOH are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.

Step 1 Collect SDOH Data
Any member of a person's care team can collect SDOH data during any encounter.
• Includes providers, social workers, community health workers, case managers, patient navigators, and nurses.
• Can be collected at intake through health risk assessments, screening tools, person-provider interaction, and individual self-reporting.

Step 2 Document SDOH Data
Data are recorded in a person's paper or electronic health record (EHR).
• SDOH data may be documented in the problem or diagnosis list, patient or client history, or provider notes.
• Care teams may collect more detailed SDOH data than current Z codes allow. These data should be retained.
• Efforts are ongoing to close Z code gaps and standardize SDOH data.

Step 3 Map SDOH Data to Z Codes
Assistance is available from the ICD-10-CM Official Guidelines for Coding and Reporting.
• Coding, billing, and EHR systems help coders assign standardized codes (e.g., Z codes).
• Coders can assign SDOH Z codes based on self-reported data and/or information documented by any member of the care team if their documentation is included in the official medical record.*

Step 4 Use SDOH Z Code Data
Data analysis can help improve quality, care coordination, and experience of care.
• Identify individuals' social risk factors and unmet needs.
• Inform health care and services, follow-up, and discharge planning.
• Trigger referrals to social services that meet individuals' needs.
• Track referrals between providers and social service organizations.

Step 5 Report SDOH Z Code Data Findings
SDOH data can be added to key reports for executive leadership and Boards of Directors to inform value-based care opportunities.
• Findings can be shared with social service organizations, providers, health plans, and consumer/patient advisory boards to identify unmet needs.
• A Disparities Impact Statement can be used to identify opportunities for advancing health equity.

For Questions: Contact the CMS Health Equity Technical Assistance Program

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Released September 7, 2023



Improving the Collection of SDOH Data With ICD-10-CM Z Codes

This resource aims to assist providers with understanding and using Z codes to improve the quality and collection of health equity data. Using social determinants of health, Z codes can enhance quality improvement activities, track factors that influence people's health, and provide further insight into existing health inequities.

IMPROVING THE COLLECTION OF Social Determinants of Health (SDOH) Data with ICD-10-CM Z Codes

What Are Z Codes?
• SDOH-related Z codes range from ICD-10-CM categories Z50-Z99 and are used to document SDOH data (e.g., housing, food insecurity, lack of transportation).
• Z codes refer to factors influencing health status or reasons for contact with health services that are not classifiable elsewhere as diseases, injuries, or external causes.

What Are SDOH & Why Collect Them?
• SDOH are the conditions in the environment where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.
• The World Health Organization (WHO) estimates that SDOH accounts for 30-40% of health outcomes.*

Using Z Codes for SDOH
• SDOH information can be collected before, during, or after a health care encounter through structured health risk assessments and screening tools.
• These codes should be assigned only when the documentation specifies that the patient has an associated problem or risk factor that influences the patient's health.
• Coding professionals may utilize documentation of social information from social workers, community health workers, case managers, or nurses, if their documentation is included in the official medical record.

ICD-10-CM Z Codes Update
• New SDOH Z codes may become effective each April 1 and October 1. New codes are announced prior to their effective date on [CMS website](https://www.cms.gov/medicare/coverage/policies).
• Use the CDC National Center for Health Statistics [ICD-10-CM Browser tool](https://www.cdc.gov/nchs/icd10cmbrowsertool) to search for all the current Z codes.
• Join the public process for SDOH code development and approval through the [ICD-10-CM Coordination and Maintenance Committee](https://www.cms.gov/medicare/coverage/policies).

Collecting SDOH can improve equity in health care delivery and research by:
• Empowering providers to identify and address health disparities (e.g., care coordination and referrals).
• Supporting quality measurement.
• Supporting planning and implementation of social needs interventions.
• Identifying community and population needs.
• Monitoring SDOH intervention effectiveness for patient outcomes.
• Using data to advocate for updating and creating new policies.

VIEW JOURNEY MAP

Source: [Health, Disparities, 2020](https://www.cdc.gov/healthypeople/data/2020) | [World Health Organization](https://www.who.int)

go.cms.gov/OMH
For Questions: Contact the CMS Health Equity Technical Assistance Program | [ICD-10-CM Official Guidelines for Coding and Reporting FY 2024](https://www.cms.gov/medicare/coverage/policies)

[Improving the Collection of Social Determinants of Health \(SDOH\) Data with ICD-10-CM Z Codes \(2023\)](https://www.cms.gov/files/document/zcodes-infographic.pdf)

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Data and Analytics for Health Equity

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Mapping Medicare Disparities (MMD) Tool



Population View Hospital View Social Determinants of Health View

The MMD Population View provides a user friendly way to explore and better understand disparities in chronic diseases, and allows users to explore health outcome measures by age, race and ethnicity, sex, 3) compare differences between two geographic areas, and 4) compare differences between two racial and ethnic groups within the same geographic area. (Use of the Chrome browser is recommended.)

Helpful links: [Quick Start Guide](#) | [FAQs](#) | [MMD Tool Technical Documentation](#) | [Office of Minority Health MMD Tool homepage](#)

Zoom Function Menu (Optional)
Select a state/territory from the menu below to focus on it. To zoom in on a custom region, move your cursor over the region of interest and scroll your mouse wheel (scroll-up). To zoom back out, scroll-down.

USA + territories
First, select a state from the menu


- Population: Medicare
- Year: Medicare Fee For Service
- Geography: Medicare Advantage
- Measure: Prevalence
- Adjustment: Unsmooth
- Analysis: Difference
- Domain: Behavior
- Condition/Service: Depression
- Sex: All
- Age: All
- Race and Ethnicity: All
- Dual Eligible: Dual & no
- Medicare Eligibility: All
- Comparison Sex: All
- Comparison Age: All
- Comparison Race and Ethnicity: All

2022
St. Louis County (Minnesota)
Prevalence
County Primary Group Depression: 23 % (Based on 10,000+ beneficiaries)
National Comparison Group Depression: 19 % (Based on 10,000+ beneficiaries)
Difference in Depression: 4 %

Click on a county of interest to visualize data trends within that area, or a full county profile

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Hospital Compare



Population View
Hospital View
Social Determinants of Health View

The MMD Hospital View provides a user friendly way to compare hospitals on quality of care (e.g., readmissions and unplanned hospital cost of care (e.g., Medicare spending). Users can visually analyze a hospital's metrics and performance scores and compare with other state, and national), hospital type (e.g., acute care and critical access), hospital ownership (e.g., government, physician, proprietary, number of beds). (Use of the Chrome browser is recommended.)

Helpful links: [Quick Start Guide](#) | [FAQ's](#) | [MMD Tool Technical Documentation](#) | [Office of Minority Health MMD Tool homepage](#)

Hospital and Measure Selection

State/Territory: Maryland

County: Montgomery Coun

Hospital: Please Select One

Domain: Please Select One

Subdomain: HOLY CROSS HOSPITAL

Measure: ADVENTIST HEALTHCARE WASHINGTON ADVENTIST HOSPITAL

Map Display: County/State

Geographic: Nation

Comparison Group: All

Hospital Type: All

Comparison Group: All

Hospital Size: All

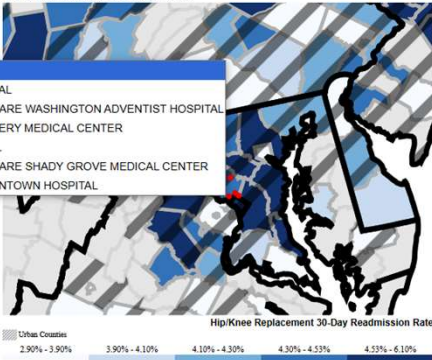
Comparison Group: All

[Download Hospital Subdomain Data](#)

[Download Map](#) | [Download Chart](#)

Geographic Selection

Select a state and county to see hospital locations. Then hover over to view hospital name, click to visualize selected subdomain in chart below.

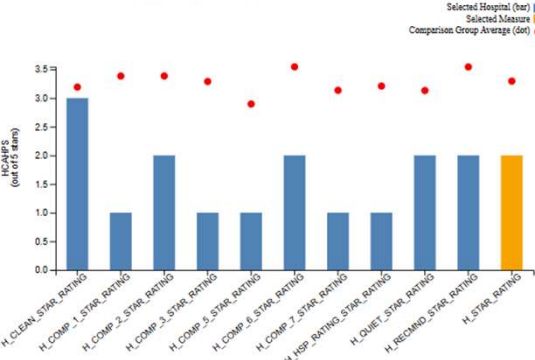


Hip/Knee Replacement 30-Day Readmission Rate

- Urban Counties
- 2.90% - 3.90%
- 3.90% - 4.10%
- 4.10% - 4.30%
- 4.30% - 4.53%
- 4.53% - 6.10%


Patient Experience: HCAHPS

Subdomain/Measure Date Range: 04/01/2022 - 03/31/2023



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Capturing SDOH Datasets



Population View
Hospital View
Social Determinants of Health View
En Español

The SDOH View provides a user-friendly way to view social determinants of health across various domains and geographies. Geographic granularity is available at county and Census Tract levels. State-level data is available as part of the Population View. (Use of the Chrome browser is recommended.)

Helpful links: [Look up Census Tract ID for your location!](#) | [Quick Start Guide](#) | [FAQ's](#) | [MMD Tool Technical Documentation](#) | [Office of Minority Health MMD Tool homepage](#)

Measure Selection

Year: 2020

State/Territory: Please Select One

County: Please Select One

Census Tract: Please Select One

Domain: Health Care Access and

Measure: Percent current on prev

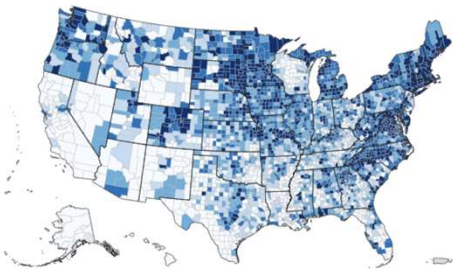
[Download SDOH Data](#) | [Download Map](#)

Geographic Selection

Hover over county or Census Tract to see data. To view Census Tract-level data, select a state and county.


County: Miami-Dade (FL)

Percent current on preventive services (65+): 28.30%



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Stratified Reports (Medicare Advantage)



To comprehensively address and eliminate health disparities, it is necessary to measure and publicly report—in a standardized and systematic way—the nature and extent of health care disparities.

Stratified reporting provides useful information for the following:

- ✓ Targeting quality improvement activities and resources,
- ✓ Monitoring health and drug plan performance, and
- ✓ Advancing the development of culturally and linguistically appropriate quality improvement interventions and strategies.

[2024 Disparities in Health Care in Medicare Advantage by Race, Ethnicity, and Sex](#)
 This report summarizes the quality of care received by Medicare Advantage enrollees nationwide, highlighting racial and ethnic differences in health care experiences and comparing the quality of care between men and women.

[2024 Disparities in Health Care in Medicare Advantage Associated with Dual Eligibility or Eligibility for a Low-Income Subsidy and Disability](#)
 This report includes information about differences in clinical care by dual eligibility for Medicare and Medicaid or eligibility for a Low-Income Subsidy (DE/LIS status). The data also examines how differences based on DE/LIS status vary by race and ethnicity and between rural and urban areas.

[2023 Rural-Urban Disparities in Health Care in Medicare](#)
 This report describes rural-urban differences in health care experiences and clinical care received by Medicare beneficiaries and compares the quality of care delivered to rural and urban Medicare beneficiaries. The reports also look at how these differences vary by race and ethnicity.


[Trends in Racial, Ethnic, Sex, and Rural-Urban Inequities in Health Care in Medicare Advantage: 2009–2018 \(December 2021\)](#)
 This report summarizes inequities in the quality of care delivered to Medicare beneficiaries enrolled in Medicare Advantage plans nationwide from 2009 to 2018. The report examines racial, ethnic, sex, and rural-urban differences in quality of health care beginning in 2009 and identifies how scores for each group have changed over time, pointing out health inequities that persisted until 2018.


<https://www.cms.gov/About-CMS/Agency-Information/OMH/research-and-data/statistics-and-data/stratified-reporting>

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Tribal Data Learning Community (TDLC) Program






A new 1-year pilot program for researchers at Tribal Epidemiology Centers (TECs) that uses CMS data to conduct research that is meaningful to tribal communities.




Sponsored by the CMS Office of Minority Health in partnership with the CMS Division of Tribal Affairs.



Provides participating TECs with data resources to assess the needs of their communities and develop appropriate interventions.

Includes a peer learning network, CMS Medicare and Medicaid program data access for 1 year, and technical support in conducting analyses.



Promotes development of research, analytic methods, and dissemination practices relevant to tribal communities.

Creates opportunities for participants to network and develop meaningful, sustainable connections with each other.

Provides timely and tailored technical assistance that enhances participants' capacity to carry out their research.

Provides a forum for CMS to engage with TECs along their research lifecycle.

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Health Equity Data Access Program (HEDAP) Grant

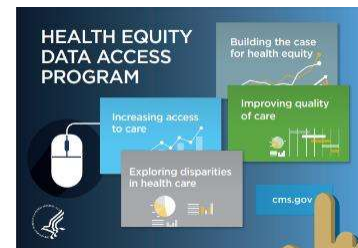


CMS OMH supports three "seats" in the CMS Virtual Research Data Center (VRDC) to assist researchers in gaining access to CMS restricted data for minority health research.

Awardees gain access to CMS data to conduct health services research focusing on, but not limited to, minority populations including race, ethnicity, language, sexual orientation, gender identity, and disability status.

Learn more:

- Visit: go.cms.gov/hedap
- Email: HEResearch@cms.hhs.gov



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Minority Research Grant Program (MRGP)



- Administered by CMS OMH to support researchers at minority-serving institutions that explore how CMS can better meet the health care needs of the populations we serve.
- Supports CMS's efforts to advance health equity by increasing understanding and awareness of health disparities, developing and disseminating solutions, and implementing sustainable actions.
- Health equity researchers with suitable projects from the following types of minority serving institutions may apply:
 - Historically Black Colleges and Universities
 - Hispanic-serving institutions
 - Asian American and Native American Pacific Islander serving institutions
 - Tribal colleges and universities
 - Predominantly Black institutions
 - Native American-serving nontribal institutions
 - Alaska Native and Native Hawaiian-serving institutions
- Email questions to OMHGrants@cms.hhs.gov

<https://www.cms.gov/priorities/health-equity/grants-awards/minority-research>

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Contact Information



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HEALTH EQUITY TECHNICAL ASSISTANCE PROGRAM

HealthEquityTA@cms.hhs.gov

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AGENCY FOR HEALTHCARE RESEARCH AND QUALITY




Hardwiring Equity @ AHRQ: A Consensus- and Evidence-Based Digital Healthcare Equity Framework


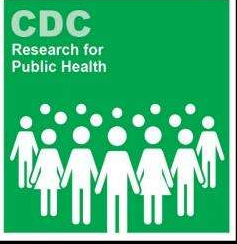
Kevin Chaney, M.G.S.

Senior Advisor for Dissemination and Innovation
Division of Digital Healthcare Research,
Center for Evidence and Practice Improvement, AHRQ

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Agency for Healthcare Research and Quality (AHRQ)




 	<p>Produce evidence to make healthcare <u>safer</u>, <u>higher quality</u>, and <u>more accessible</u>, <u>equitable</u>, and <u>affordable</u>.</p>
 	<p>To work with the Department of Health and Human Services (HHS) and other partners to make sure that the evidence is <u>understood</u> and <u>used</u>.</p>

www.ahrq.gov

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How AHRQ Improves Healthcare Delivery



- **Generating scientific evidence and knowledge:** AHRQ funds health services research to understand how care is delivered and how it can be delivered better (quality, safety, **equity**, value).
- **Moving evidence into practice:** AHRQ fills the “Evidence to Implementation Gap” with knowledge generation and implementation, development of –tools, training, resources, and (nonregulatory, nonpunitive) assistance.
- **Monitoring and feedback:** AHRQ provides performance measurement, data collection, analytics, and reporting (especially on quality and disparities).

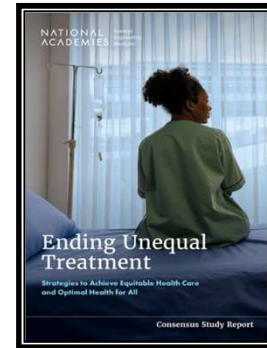
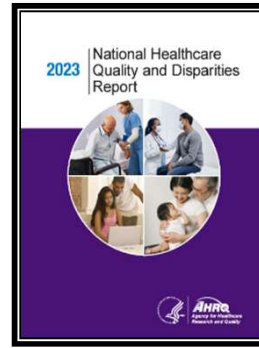
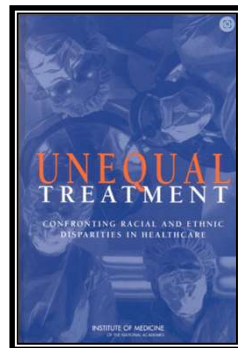
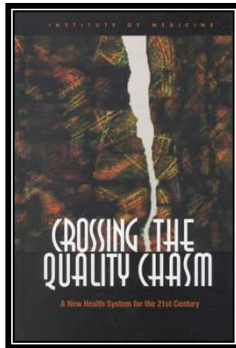
**AHRQ is to healthcare systems as
CDC is to public health systems.**

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Trending in the Wrong Direction



- Just two decades ago, the Institute of Medicine released two seminal reports on the need to improve healthcare quality—one that emphasized [the promise of digital healthcare technologies](#) (2001) and another on [healthcare disparities](#) (2003).
- Since then, healthcare technology has made significant strides. However, as the latest AHRQ [report \(2023\) on healthcare quality and disparities](#) shows, inequities stubbornly persist (2024).



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Hardwiring Equity @ AHRQ



- AHRQ is aware of inequities and implicit bias embedded in today's healthcare delivery systems.
- Our efforts have been informed by the Administration's commitment to advancing equity and support for underserved communities, as described in Executive Orders [13985](#) and [14091](#) and [HHS' Health Equity Plan](#).
- AHRQ is committed to efforts to fund and disseminate strategies to vanquish care inequities and bias and advance all Americans' well-being by leveraging three core competencies:
 - Health services and systems research (HSR)
 - Practice improvement
 - Data and analytics

Improving Health Equity through Research and Action

AHRQ's mission is to produce evidence to improve healthcare quality so that it is safer, more accessible, equitable, and affordable and to work with consumers, healthcare leaders and clinicians, HHS divisions, and other partners to ensure the evidence is understood and used.

AHRQ develops and disseminates actionable knowledge, tools, and data to help consumers, their families, healthcare professionals, and policymakers make informed healthcare decisions. AHRQ is the home for health services research and is the Nation's lead federal agency for primary care and patient safety research across all settings of care.

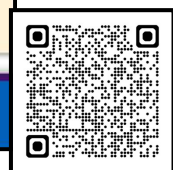
AHRQ is acutely aware of inequities and implicit bias embedded in today's healthcare delivery systems and has been committed to expanding its efforts to fund and disseminate strategies to vanquish care inequities and bias and advance all Americans' well-being.

To achieve these goals, AHRQ has thoroughly examined equity and its connections to Agency activities in alignment with its mission. AHRQ's efforts have also been informed by the Biden-Harris Administration's commitment to advancing equity and support for underserved communities, as described in President Biden's Executive Orders (Executive Orders 13985 and 14091) and HHS' Health Equity Plan.

AHRQ's goal is to "hard wire" health equity into the Agency's core competencies to ensure that equity is a priority in everything that the Agency does to improve patient care.

AHRQ's mission and research focus are to produce evidence to improve healthcare quality by leveraging three core competencies:

- Health services and systems research (HSR): AHRQ invests in research that generates scientific evidence and actionable knowledge by funding HSR to understand how care is delivered and how healthcare services can be delivered more safely and effectively for everyone.
- Practice improvement: AHRQ moves actionable knowledge derived from the body of scientific evidence into practice by developing tools, training, resources, and interorganizational, responsive assistance, leading to strategies to help health systems and clinicians improve care.
- Data and analytics: AHRQ data and analysis help healthcare decision makers understand health system performance and where opportunities for improvement lie for Federal, state, and local policymaking.



<https://www.ahrq.gov/sites/default/files/wysiwyg/cpi/about/health-equity/health-equity-factsheet.pdf>

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AHRQ's Research and Action Agenda



- Summarize the state of evidence and results from an inclusive, participatory process to identify opportunities in five areas to drive more equitable care:
 - [Healthcare delivery systems and structure](#)
 - [Payment](#)
 - [Social determinants of health and social needs](#)
 - [Implementation science](#)
 - [Access to care](#)

DOI: 10.1111/1471-9773.14229

COMMENTARY

Advancing health equity-Agency for Healthcare Research and Quality research and action agenda

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¹Agency for Healthcare Research and Quality, US Department of Health and Human Services, Rockville, Maryland, USA
²Department of Medicine, University of Chicago, Chicago, Illinois, USA

1 | INTRODUCTION

The United States continues to grapple with profound and persistent health inequities that harm its vitality. President Biden's Executive Order (EO) outlined the first-ever "whole of government" comprehensive approach to advancing equity for all people. It defined equity as "the consistent and systematic, fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color, members of religious minorities, veterans, gay, bisexual, transgender, and queer (LGBTQ+) persons, persons with disabilities, persons who live in rural areas, and persons otherwise adversely affected by persistent poverty or inequality."¹

The Agency for Healthcare Research and Quality (AHRQ) is acutely aware of inequities embedded within the US healthcare system that stand in the way of advancing equity for all people. AHRQ has a long history of funding and disseminating research to address inequities and advance health and healthcare equity. This focus continues as demonstrated by the publication of a Special Emphasis Notice (SEN) to highlight AHRQ's interest in new and innovative investigator-initiated grant applications focused on health services research to advance health equity and a Request for Application (RFA) specifically aimed at building new evidence regarding the implementation and effectiveness of

Over the past 2 years, AHRQ has examined equity in its work, including internal workforce culture, policies and procedures for addressing research programs, and opportunities to center health and healthcare equity within our research priorities. As part of the letter, AHRQ is establishing an Equity Agenda and Action Plan, leveraging its core capabilities of research, practice improvement, data and analytics, and health systems workforce training. AHRQ hosted a multi-stakeholder Health Equity Summit and invited five papers to summarize the state of the evidence and provide input for the equity research agenda in five action domains for which AHRQ, as well as health services, could drive more equitable care: (1) Healthcare Delivery, (2) Payment, (3) Social Determinants of Health, (4) Implementation Science, and (5) Access to Care. This commentary describes the inclusive, agency-leading process Research and Action Health Equity Framework used by the Summit to explore the action domains through an highlights key cross-cutting themes that emerged from papers that can serve as a basis for informing a research agenda and the field of health services research, more broadly.

2 | INCLUSIVE AGENDA BUILDING PROCESS

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Addressing Bias With Healthcare Algorithms



Comparative Effectiveness Review
Number 268

Impact of Healthcare Algorithms on Racial and Ethnic Disparities in Health and Healthcare

JAMA Health Forum.

Original Investigation

Awareness of Racial and Ethnic Bias and Potential Solutions to Address Bias With Use of Health Care Algorithms

April Jan, MD, Berni R. Beale, MA, Cynthia C. Afful, MPH, MS, Christine S. Chang, MD, MPH, Nora M. Mueller, PhD, MA, Greg A. Umscheid, MD, MS, Andrew S. Barrman, MD, MS

Abstract

IMPORTANCE: Algorithms are commonly incorporated into health care decision tools used by health systems and payers and thus affect quality of care, access, and health outcomes. Some algorithms include patient's race or ethnicity among their inputs and can lead clinicians and decision makers to make choices that vary by race and potentially affect inequities.

OBJECTIVE: To inform an evidence review on the use of race- and ethnicity-based algorithms in health care by gathering public and stakeholder perspectives about the representations of and efforts to address algorithm-related bias.

Key Points

Question: How are racial and ethnic biases associated with health care algorithms and efforts to address these biases perceived?

Findings: In this qualitative study about views regarding health care algorithms, responses from 47 respondents suggested algorithms are in widespread use and may be biased whether or not

- When algorithms include race and ethnicity without clear rationale, they may perpetuate the incorrect notion that race is a biologic construct and contribute to disparities.
- Some algorithms may reduce or perpetuate disparities without containing race and ethnicity as an input.
- Several modeling studies showed that applying algorithms out of context of original development (e.g., illness severity scores used for crisis standards of care) could perpetuate or exacerbate disparities.

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AHRQ's Guiding Principles to Address Impact of Algorithm Bias



- Overarching goals:
 - Promote health and healthcare equity during *all healthcare algorithm life cycle phases*.
 - Ensure healthcare algorithms and their use are *transparent and explainable*.
 - *Authentically engage patients and communities* during all healthcare algorithm life cycle phases and earn trustworthiness.
 - *Explicitly identify* healthcare algorithmic fairness issues and *tradeoffs*.
 - *Establish accountability* for equity and fairness in outcomes from healthcare algorithms.

The screenshot shows the top portion of a research article. It includes the JAMA Network Open logo, the article title, author names (Maruthi H. Choi, MD, MPH; Hasan Akbar Maroof, MD, MBA, MPH; Arlene S. Bennett, MD, MS; Christine Chang, MD, MPH; Caleb J. Colon-Hickman, DPH, MPH; Heather Dubler, MD, Deborah Gussman Davis, PhD; Hibaoui, MD, MPH; Thea Hornbush-Strauss, PhD, MPH, MS; Brian Lightner, MD, MPH, MBA; Anil Jain, MD, William B. Jordan, MD, MPH; Stephanie Korne, Roger Makdisi Houna, MD, Terrie Soren House, JD; Richard S. Houghton, MPH; Gunder D. Jensen, PhD; Lynne Page Snyder, PhD; MPH; Miharu Srinivasan, PhD; Craig A. Umscheid, MD, MS; Lucia Otero-Matute, MD, PhD, MBA), and a QR code in the bottom right corner.

The Promise and Pitfalls of Digital Healthcare Technologies



- **Promise:** Digital healthcare technologies can improve healthcare delivery and outcomes
- **Pitfalls:** Needs and capabilities of affected patient and caregiver populations often not recognized
- **The Result:** Increased healthcare disparities


The thumbnail features the text 'RESEARCH ARTICLE' in a red box, followed by 'ECONOMICS' and the article title 'Dissecting racial bias in an algorithm used to manage the health of populations'.

Seniors Seeking Vaccines Have a Problem: They Can't Use the Internet
 Older adults living alone often lack access or an understanding of technology, and many are unsure how to sign up for an appointment.

The thumbnail shows a header for 'Yale School of Medicine' and the article title 'Addressing Gender Identity Biases in Electronic Health Record Systems'.


Residents in 'digital deserts' have fewer health care options
 UC epidemiologist says disparities in health care could get worse as more services go online

Goals




Develop an evidence- and consensus-based digital healthcare equity framework.

Create a practical guide to help users implement the framework and bring equity intentionality across the digital healthcare lifecycle.



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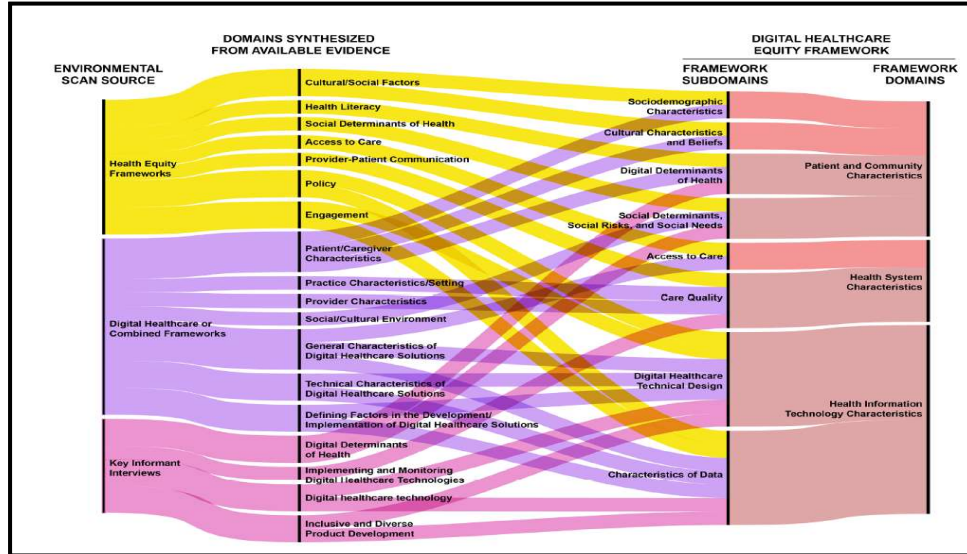
Project Scope



Environmental Scan	<div style="background-color: #2e8b57; width: 100%; height: 15px; margin-bottom: 5px;"></div> <div style="background-color: #2e8b57; width: 80%; height: 15px;"></div>	Scoping Review Key Informants Interviews		Gathering Background Information
JHU/ NCQA Advisors Review and Feedback	<div style="background-color: #1e66b3; width: 20%; height: 15px; margin-bottom: 5px;"></div> <div style="background-color: #1e66b3; width: 30%; height: 15px; margin-bottom: 5px;"></div> <div style="background-color: #1e66b3; width: 15%; height: 15px;"></div>			Drafting, Revising, and Finalizing the Framework and Implementation Guide
TEP Feedback		<ul style="list-style-type: none"> ● 1st General Meeting ● Small Group Discussions 	<ul style="list-style-type: none"> ● 2nd General Meeting ■ General Survey ● Usability Testing 	

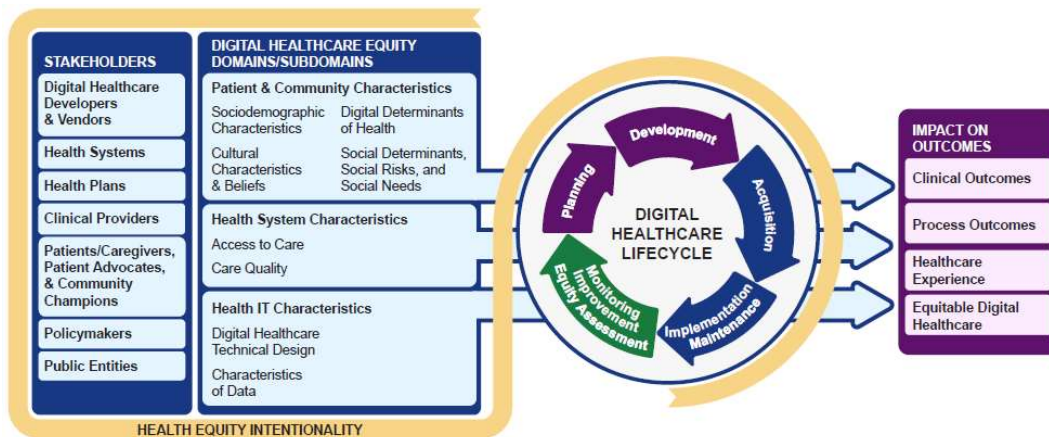
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Identifying Framework Domains




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Digital Healthcare Equity Framework




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Getting Intentional About Digital Healthcare Equity




Evidence- and Consensus-Based Digital Healthcare Equity Framework



Evidence- and Consensus-Based Digital Healthcare Equity Framework

A PRACTICAL GUIDE FOR IMPLEMENTATION



The advancement of digital healthcare technologies has resulted in many viable solutions that can improve healthcare delivery and outcomes. But all too often, the designers and implementers of these technologies have not intentionally considered the unique needs and capabilities of all applicable patient groups. Omitting equity considerations throughout the lifecycle of digital healthcare technologies can create new or exacerbate existing healthcare disparities.


This guide offers technology developers, health plans, and healthcare providers a step-by-step path for implementing the [Evidence- and Consensus-Based Digital Healthcare Equity Framework](#) so they can intentionally consider equity across all phases of the digital healthcare lifecycle for patient-facing and clinician-facing healthcare solutions involving digital technologies.

GETTING STARTED!

- > [What's the Problem](#)
- > [About the Framework](#)
- > [Components of the Framework](#)
- > [Implementing the Framework](#)
- > [Using the Guide](#)
- > [Steps for Digital Healthcare Developers and Vendors](#)
- > [Steps for Health Systems, Health Plans and Clinical Providers](#)


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A Practical Guide



Evidence- and Consensus-Based Digital Healthcare Equity Framework

A PRACTICAL GUIDE FOR IMPLEMENTATION




The advancement of digital healthcare technologies has resulted in many viable solutions that can improve healthcare delivery and outcomes. But all too often, the designers and implementers of these technologies have not intentionally considered the unique needs and capabilities of all applicable patient groups. Omitting equity considerations throughout the lifecycle of digital healthcare technologies can create new or exacerbate existing healthcare disparities.

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- > [Steps for Health Systems, Health Plans and Clinical Providers](#)

- **Intended Users:**
 - Digital healthcare developers and vendors
 - Health systems, health plans, and clinical providers
- **Provides users with best practice examples and steps to help implement the Framework**



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Getting Started



- Any transformational change depends on strong leadership, organizational readiness, and ongoing systems support. Here are some general recommendations:
 - Assess Your Organizational Readiness
 - The assessment should focus on 1) change management capabilities; 2) economic assessments, including costs and the potential return on investment related to equity intentionality; 3) health IT and data capabilities; and 4) leadership commitment to improving health equity
 - Identify an Equity Champion
 - Develop a Diverse Workforce
 - Build in Equity Assessments and Feedback Loops
 - Track Whether Equity is Achieved

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Using the Guide



<p>Steps for Digital Healthcare Developers and Vendors</p> <p>FOCUSING ON THE PLANNING AND DEVELOPMENT PHASES OF THE DIGITAL HEALTHCARE LIFECYCLE</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p>Checklist Of Steps for Digital Healthcare Developers and Vendors:</p> <p>Select each step for additional information and real-world examples.</p> <ul style="list-style-type: none"> ✓ Identify and engage potential users of the digital healthcare solution, including marginalized demographic groups, to ensure it will meet their needs. ✓ Understand the cultural characteristics and beliefs of the community where the solution is proposed to identify potential barriers to using the proposed solution. ✓ Consider the impact of the proposed solution on digital equity in a distinct healthcare setting. ✓ Assess whether the proposed solution serves as a facilitator (versus a barrier) to accessing and receiving high-quality care. ✓ Assess the technical characteristics of the proposed solution and how it will be used by potential users. ✓ Ensure that data are used equitably and transparently during the development and implementation of a solution, including capturing, generating, or transmitting data. </div>	<p>Steps for Health Systems, Health Plans, and Clinical Providers</p> <p>FOCUSING ON THE ACQUISITION AND MAINTENANCE PHASES OF THE DIGITAL HEALTHCARE LIFECYCLE</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p>Checklist Of Steps For Health Systems, Health Plans, and Clinical Providers:</p> <p>Select each step for additional information and real-world examples.</p> <ul style="list-style-type: none"> ✓ Adopt a digital inclusion-informed strategy for the implementation and maintenance of healthcare solutions that involve digital technologies. ✓ Consider a participatory and multisectoral approach to the implementation and maintenance of healthcare solutions that involve digital technologies. ✓ Consider the impact of the implemented solution on digital equity (access to and quality of care, and care continuity) across different types of health systems. ✓ Adopt strategies that guarantee a new healthcare solution serves as a facilitator and not as a barrier to accessing and receiving high-quality care. ✓ Assess the technical characteristics of the solution and how it will be used. ✓ Before acquiring a healthcare solution, consider the impact of the solution on digital equity (access to and quality of care, and care continuity) across different types of health systems. ✓ Before implementing and maintaining a healthcare solution, consider the impact of the solution on digital equity (access to and quality of care, and care continuity) across different types of health systems. </div>	<p>Steps for Health Systems, Health Plans, and Clinical Providers</p> <p>FOCUSING ON THE MONITORING/IMPROVEMENT/EQUITY ASSESSMENT PHASE OF THE DIGITAL HEALTHCARE LIFECYCLE</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p>Checklist Of Steps For Health Systems, Health Plans, and Clinical Providers:</p> <p>Select each step for additional information and real-world examples.</p> <ul style="list-style-type: none"> ✓ Identify the characteristics of the populations that are using a healthcare solution that involves digital technologies, and identify populations presently excluded, not benefiting, or not participating at the desired or same rates as others. ✓ Use a participatory approach to collect input from affected community members about the healthcare solution that involves digital technologies. ✓ Consider the impact of the healthcare solution on digital equity (access to and quality of care, and care continuity) across different types of health systems. ✓ Adopt strategies that guarantee a new healthcare solution that involves digital technologies serves as a facilitator, not a barrier, to accessing and receiving high-quality care. ✓ Identify information sources and gaps in available data for a comprehensive monitoring, improvement, and equity assessment of digital technologies. </div> <div style="text-align: right; margin-top: 20px;"> </div>
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Key Takeaways



- AHRQ is committed to efforts to fund and disseminate strategies to vanquish care inequities and bias and advance all Americans' well-being by leveraging its core competencies.
- AHRQ's Evidence- and Consensus-Based Digital Healthcare Equity Framework (the Framework) serves as a tool to help users and other stakeholders assess whether healthcare solutions that involve digital technologies are equitable at every phase of the digital healthcare lifecycle.
- The Implementation Guide (the Guide) provides users with best practice examples and steps to help implement the Framework at their organization.

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The Latest Research, Funding Opps, Webinars, Tools, and Resources



The screenshot displays the AHRQ Digital Healthcare Research website. At the top, the AHRQ logo and tagline 'Agency for Healthcare Research and Quality' are visible. Below this is a navigation menu with links for 'Program Overview', 'DHR@20', 'Funded Projects', 'Tools and Resources', 'National Webinars', 'Funding Opportunities', and 'Topics A-Z'. A search bar is located on the right side of the header. The main content area features a large image of a book titled 'Improving Healthcare Through AHRQ's Digital Healthcare Research Program'. To the right of the image, there is a list of recent publications and funding opportunities, including 'Just Released: Improving Healthcare Through AHRQ's Digital Healthcare Research Program', 'Just Published! JAMA Article Captures DHR's 20 Years of Advancing Innovation and Discovery', 'Honoring 20 Years of Digital Health Innovation and Excellence', 'New Funding Opportunity: Examining the Impact of Artificial Intelligence (AI) on Healthcare Safety', and 'New: A Practical Guide for Implementing the Digital Healthcare Equity Framework'. A QR code is located in the bottom right corner of the screenshot.

www.digital.ahrq.gov

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Stay Current on AHRQ Developments



- Connect to AHRQ's LinkedIn page: <https://www.linkedin.com/company/agency-for-healthcare-research-and-quality/>
- Sign up for *AHRQ News Now*, the Agency's weekly electronic newsletter, and enroll to receive content specific GovDelivery bulletins: [https://subscriptions.ahrq.gov/accounts/ USAHRQ/subscriber/new](https://subscriptions.ahrq.gov/accounts/USAHRQ/subscriber/new)

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References and Links



- Crossing the Quality Chasm: <https://www.ncbi.nlm.nih.gov/books/NBK222268/>
- Unequal Treatment: <https://nap.nationalacademies.org/catalog/12875/unequal-treatment-confronting-racial-and-ethnic-disparities-in-health-care>
- 2023 National Healthcare Quality and Disparities Report: <https://www.ahrq.gov/research/findings/nhqrdr/nhqdr23/index.html>
- 2024 Ending Unequal Treatment: <https://nap.nationalacademies.org/catalog/27820/ending-unequal-treatment-strategies-to-achieve-equitable-health-care-and>
- Health Services Research—Special Issue: <https://onlinelibrary.wiley.com/toc/14756773/2023/58/S3>
- Health Services Research Article: <https://onlinelibrary.wiley.com/doi/epdf/10.1111/1475-6773.14230>

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References and Links, pt 2



- **Addressing Algorithmic Bias:**
https://effectivehealthcare.ahrq.gov/sites/default/files/related_files/cer-268-racial-disparities-health-healthcare-addendum.pdf
- **Awareness of Racial and Ethnic Bias and Potential Solutions to Address Bias With Use of Health Care Algorithms:** <https://jamanetwork.com/journals/jama-health-forum/fullarticle/2805595>
- **Guiding Principles to Address Algorithmic Bias:**
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC11181958/pdf/nihms-1999312.pdf>
- **Evidence- and Consensus-Based Digital Healthcare Equity Framework:**
<https://digital.ahrq.gov/sites/default/files/docs/citation/health-equity-framework.pdf>
- **A Practical Guide:** <https://digital.ahrq.gov/sites/default/files/docs/citation/health-equity-practical-guide.pdf>

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Digital Healthcare Research
Advancing Today's Discoveries, Transforming Tomorrow's Care

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AGENCY FOR HEALTHCARE RESEARCH AND QUALITY



Health IT and Equity by Design

David R. Hunt, M.D., FACS

Medical Director, Patient Safety
Assistant Secretary for Technology Policy, Office of Policy

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Disclaimer



- Unfortunately, due to a series of questionable career choices, Dr. David Hunt has no financial relationships, affiliations with ineligible companies, or conflicts of interest to disclose.
- The materials contained in this presentation are based on the provisions contained in 45 C.F.R. Parts 170 and 171. While every effort has been made to ensure the accuracy of this restatement of those provisions, this presentation is not a legal document. The official program requirements are contained in the relevant laws and regulations. Please note that other federal, state, and local laws may also apply.

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Objectives



- Describe the ecosystem of health disparities and the opportunities for electronic health information to identify points of possible mitigation.
- Apply principles of the ASTP Health Equity by Design policy to reduce barriers to health equity using information technology.
- Analyze the process of artificial intelligence model creation and determine the opportunities for the introduction of bias.

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About ASTP/ONC



Our Vision

Better health enabled by data.



Our Mission

To create systemic improvements in health and care through the access, exchange, and use of data.

PRIORITIES



Build the digital foundation

- Data standards
- Health IT gaps
- HHS Health IT Alignment Policy



Make interoperability easy

- TEFCA
- APIs
- Expand education and outreach



Promote information sharing

- Information blocking rules
- HHS Health IT Alignment Policy




Ensure proper use of digital information and tools

- Health equity by design (data capture and use)
- Transparency in areas such as algorithm use and safety

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The NEW ENGLAND JOURNAL of MEDICINE


POINTS OF VIEW

“What Do Health Inequities Have to Do with Anything?”

One of my most cherished career moments was giving a presentation at the American Heart Association Scientific Sessions last November on the effects of stress on cardiovascular disease inequities affecting Black women. I was ecstatic that that research has shown that medical mistrust fuels them, and that patient-provider relationships are paramount in building trust. “What do health inequities have to do with anything?” she scoffed, turning to the nurse to mock me.

N Engl J Med 390;23 nejm.org June 20, 2024

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What Do Health Inequities Have to Do With Anything?

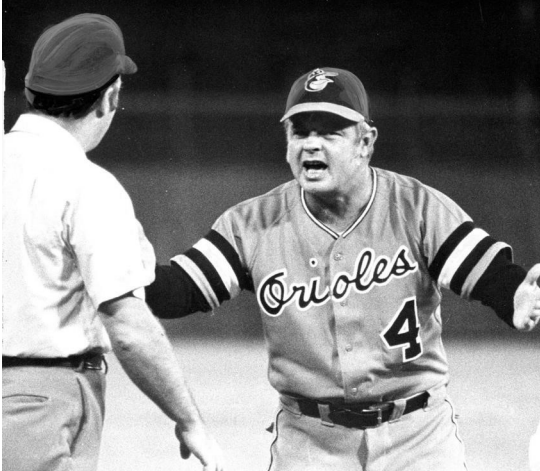
There’s no silver bullet for reducing health disparities. But as a health researcher who is Black in America, I can say unequivocally that health inequities have everything to do with everything. And people are literally dying for a solution.

Jolaade Kalinowski, Ed.D.
University of Connecticut
Storrs, CT

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Transformation?



"Are you going to get any better or is *this it?*"

Earl Weaver

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An Inclusive Framing of How to Address Challenges



FAVES is our quality framework describing the characteristics of "high-quality" algorithms and communicating how we may get the best out of predictive models in healthcare.

Fair (unbiased, equitable)

Model does not exhibit biased performance, prejudice, or favoritism toward an individual or group based on their inherent or acquired characteristics. The impact of using the model is similar across same or different populations or groups.

Appropriate

Model is well matched to specific contexts and populations to which it is applied.

Valid

Model has been shown to estimate targeted values accurately and as expected in both internal and external data.

Effective

Model has demonstrated benefit and significant results in real-world conditions.

Safe

Model use has probable benefits that outweigh any probable risk.

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What Does “Health Equity by Design” Mean?

• What is it?

- Equity considerations are identified and incorporated as early as possible in design, build, and implementation process
- Health IT products and capabilities are designed to be foundationally equity enforcing—making the implicit explicit
- Strategies, tactics, and patterns are guiding principles for developers, enforced by architecture and built into the system at every layer

What is ASTP/ONC doing to promote health equity by design?

- Data and standardization efforts to address health inequities
 - USCDI: Added SDOH and SOGI data in July 2021; USCDI v3 in July 2022
 - Race, ethnicity, language (REL) data: Identify levers for adoption of standards across USG and industry
- Programmatic efforts to address health inequities
 - Public Health Informatics & Technology program: \$73M to 10 awardees to train/place 4000+ students from MSIs
 - Referrals for social services: Awarded LEAP grant to UT Austin
- Finalized policies focus on the use of AI and predictive algorithms that optimize for clinical decision making and methods that build transparencies into these technologies to help guard against discrimination

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Ecosystem of Health Disparities

Inequities upstream lead to disparities in care and outcomes downstream

Inequities
Disparities

Social Inequities	Institutional Inequities	Living Conditions	Risk Behaviors	Disease & Injury	Mortality
<ul style="list-style-type: none"> • Class • Race/ethnicity • Immigration status • Gender • Sexual orientation • Disability 	<ul style="list-style-type: none"> • Corporations & businesses • Federal government agencies • STLT agencies • Laws & regulations • Schools • Not-for-profit organizations • Criminal justice system • Healthcare system 	<ul style="list-style-type: none"> • Physical environment • Economics & work environment • Social environment • Service environment 	<ul style="list-style-type: none"> • Smoking • Poor nutrition • Low physical activity • Violence • Alcohol & other drugs • Sexual behavior 	<ul style="list-style-type: none"> • Communicable disease • Chronic disease • Injury (intentional & unintentional) 	<ul style="list-style-type: none"> • Infant mortality • Life expectancy

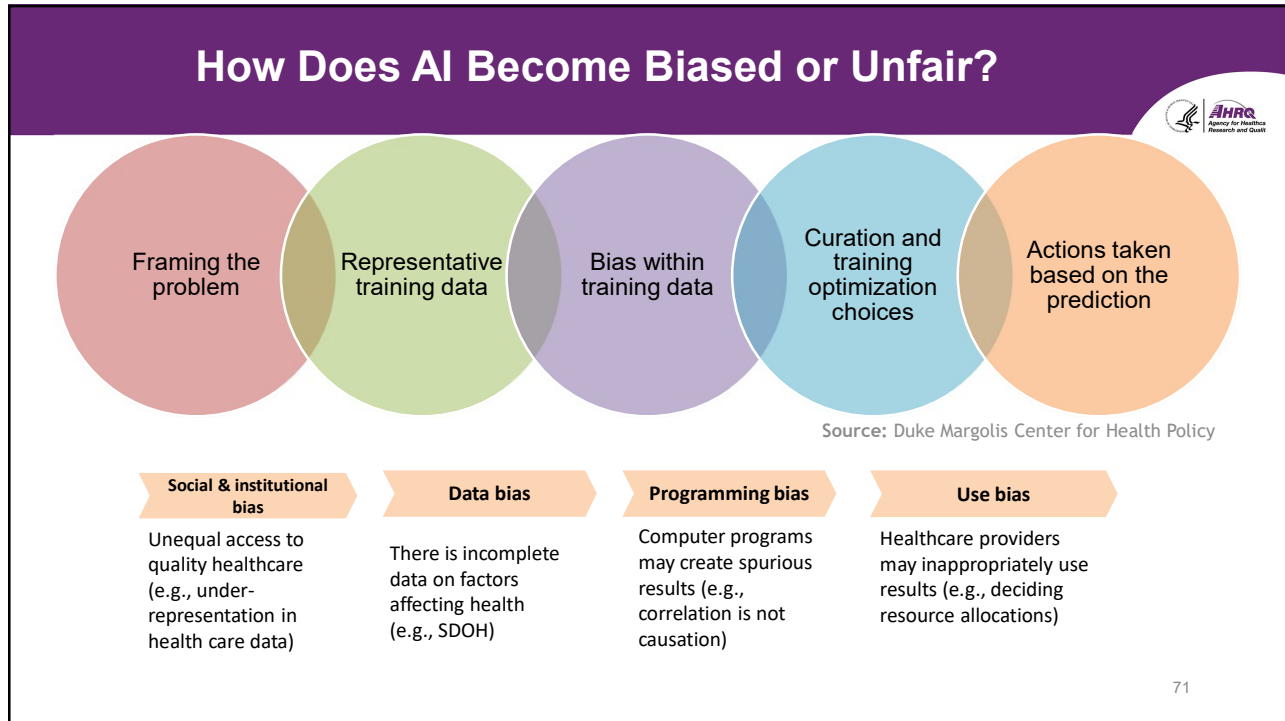
80% of non-genetic determinants of health (upstream)

Focus of traditional healthcare and historic ONC activities (downstream)

Data needs to turn into actions

- Data to better identify health inequities
- Mechanisms for upstream intervention to mitigate social determinants of poor health

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Radiology

ORIGINAL RESEARCH • BREAST IMAGING

Patient Characteristics Impact Performance of AI Algorithm in Interpreting Negative Screening Digital Breast Tomosynthesis Studies

Derek L. Nguyen, MD • Yinhao Ren, PhD* • Tyler M. Jones, BS • Samantha M. Thomas, MS • Joseph Y. Lo, PhD • Lars J. Grimm, MD, MS*

From the Department of Radiology, Duke University School of Medicine, 10 Duke Medicine Cir, Durham, NC 27710 (D.L.N., J.Y.L., L.J.G.); Pratt School of Engineering (Y.R.) and Department of Biostatistics and Bioinformatics (T.M.J., S.M.T.), Duke University, Durham, NC; and iCAD, Nashua, NC (Y.R.). Received August 31, 2023; revision requested November 7; final revision received January 22, 2024; accepted March 25. Address correspondence to D.L.N. (email: derek.nguyen@duke.edu).

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“In conclusion, our study demonstrated that **patient characteristics were associated with the performance of a commercially available artificial intelligence (AI) algorithm** when analyzing negative screening digital breast tomosynthesis mammograms. The Food and Drug Administration **should provide clear guidance on the demographic characteristics of samples used to develop algorithms, and vendors should be transparent about how their algorithms were developed.** Continued efforts to train future AI algorithms on diverse data sets are needed to ensure standard performance across all patient populations.”

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“It soon became clear, however, that tacit assumptions—the substance of dogma—served as a barrier to effective communication.”

Barbara McClintock
(1902–1992)

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