DMI and Health Equity

Effective public health means equitable public health. Data can help us get there.

> "COVID-19 has once again exposed how racism and where one lives determine, to a large degree, a person's life trajectory in America. It has shined a critical light on the need to radically transform our public health data systems if we truly want to create an equitable society."
>
> *— Richard E. Besser, MD. President and CEO of the Robert Wood Johnson Foundation*

CDC's Data Modernization Initiative (DMI) is bridging the gap between the data we have now and the data we need to fully understand and address the drivers of health disparities. We are taking action toward more equitable public health by making data more complete, higher quality, more accessible, and more representative of all people.

Our goal is an "equity-centered" data system that accounts for social factors that have an impact on health, such as where people live, their environment, their income and jobs, the discrimination they face, and their access to health care.

Our vision for health equity is to have:

- One public health community that shares best practices and standards for collecting data on race, ethnicity, and social determinants of health.
- Broader access to integrated data that reflects the real-time needs of local communities.
- Timely and complete data to help public health authorities distribute resources equitably, especially for environmental disasters or emerging public health threats.

How DMI Supports Health Equity

DMI is focusing on the potential of data to empower effective decision-making at the local level and to produce positive health outcomes, not only to stop diseases but to create wellness. We are committed to gathering evidence using true and transparent methods, and to listening to our partners and communities at every step.

Explore the topics below to learn about how DMI activities support health equity.

Improving the collection of equity-related data

A first step toward equity is improving the data we have available. Through DMI, we are:

- **Automating race, ethnicity, and other demographic data collection** and bringing it closer to the point of care to get this information faster and more accurately. We are doing this by:
  - Expanding electronic case reporting that comes directly from electronic health records
  - Increasing our ability to capture race and ethnicity data from emergency department visits
  - Onboarding additional healthcare facilities and laboratories onto electronic platforms at record speed, which improves the representativeness of the data we're getting
  - Supporting work with vital statistics partners to ensure that race, ethnicity, and other demographic information is reported accurately on death certificates
- **Adding Social Determinants of Health modules** that track topics like food and housing insecurity, transportation, social support, well-being, and economic stability into our surveillance systems that monitor behavioral risk factors and pregnancy risk
  - We are also adding these modules into the PLACES system, which is a collaboration with the Robert Wood Johnson Foundation and CDC Foundation to provide health data at the very local level
- **Collecting more specific non-health data** on smaller populations that have been historically underserved and under-represented in the data
  - Using vital statistics and Census data to develop a mortality profile for the American Indian and Alaska Native population, and to improve the quality of these data, which we know are much needed in the public health community
- **Adding experimental survey questions** on gender identity to the National Health Interview Survey in 2022
  - Conducting data quality evaluations to provide other CDC surveys with the information they need to support including gender identity questions
- **Establishing the Center for Forecasting and Outbreak Analytics** to propel us toward our goal of connecting to new and non-traditional data sources
  - Delivering better information to decision-makers so they can direct resources more effectively and equitably

Improving how we consolidate, link, and use equity-related data

We need to gain insights that will inform equitable public health decisions. DMI is accelerating this by:

- **Using new tools and approaches to reduce and account for biases in public health data and analytics and improve understanding of Social Determinants of Health. This includes:**
  - **Working with the Gravity Project** to build a national public health Use Case for Social Determinants of Health
  - **Using privacy enhancing technologies to report on smaller population groups** like tribal populations, enabling us for the first time to post restricted data to tools like GitHub that increase accessibility and democratize the data
- **Working to understand the impacts of social and demographic factors on health by linking data in new ways, such as:**
  - Leveraging the **Social Vulnerability Index**, which uses U.S. Census data on categories like poverty, housing, and vehicle access to estimate a community's ability to respond to and recover from disasters or disease outbreaks
    - Using these data to specifically identify health-equity related data on the **CDC COVID Data Tracker**
    - Linking these data to social mobility data to understand population movement and **equitably allocate resources** in emergencies
  - Analyzing race and Hispanic origin in the context of other demographic factors and excess mortality to help uncover disparities
- **Partnering across the federal government and with research and private industry to make new data connections, including:**
  - Partnering with the **Veterans Affairs Office of Health Equity** to link both health and benefits data to examine the effect of social and demographic factors as well as short- and long-term health care outcomes
  - Partnering with the **U.S. Census Bureau** on the Household Pulse Survey, which tracks in near real-time how the pandemic is impacting households across the country from a social and economic perspective
  - Working with **Georgia Tech Research Institute** on the use of synthetic data files, as well as working with new privacy-preserving record linkage techniques to improve the ability to connect across federal data resources

Sharing equity-related data with the public

Through DMI, we are making data more open and accessible to everyone by:

- **Using new privacy enhancing technologies and tools to make data more available for use.** This includes:
  - Sharing demographic data on COVID cases with the public
    - For example, we are now able to release information on age, sex, race, and ethnicity while still protecting individual privacy, allowing others to see that data and supporting researchers in understanding the effects of policies and programs on equity and justice. (e.g., in Morehouse School of Medicine's Health Equity Tracker)
  - Protecting privacy when reporting on smaller population groups like tribal populations, enabling us for the first time to post restricted data to tools like GitHub that increase accessibility and democratize the data
- **Releasing more demographic information to the public in our death and life expectancy data.**
  - We are adding race and Hispanic origin data to provisional death data releases – information that was previously available only in final data releases.
  - We are also releasing reports that reflect changes in life expectancy by race and Hispanic origin.
- **Sharing data regularly to help states distribute vaccines to reach all Americans.**
  - This includes using data to engage communities equitably and inclusively, ensuring people can ask questions and get clear, accurate information about COVID 19 vaccines.
- **Aligning our DMI work with the CDC COVID-19 Response Health Equity Strategy and guiding principles for communication to ensure that data and results are shared in culturally and linguistically appropriate ways.**

Building a highly skilled, diverse workforce

People and skills matter to creating equitable public health. That's why DMI is strengthening the public health workforce:

- **At CDC:** We are growing an inclusive, state-of-the-art workforce equipped to assess and address the unique needs of an increasingly diverse population.
- **At the state and local levels:** CDC is supporting state and local jurisdictions to build a public health workforce that represents the communities in which they work.
- **For the future:** The Center for Forecasting and Outbreak Analytics will establish a network of investigators to advance research on forecasting, modeling, and outbreak analytics, with a focus on improving health equity and early threat mitigation.

Select Resources

Stories

- 3 Ways We're Making Chronic Disease Data More Equitable (*2022 DMI Snapshot*, April 2023)
- Looking at AI's Impact on Health Equity (*2022 DMI Snapshot*, April 2023)
- Meaningful Change for Equitable Data (*2022 DMI Snapshot*, April 2023)
- Over 1,000 Facilities in Medically Underserved Communities Are Now Connected to eCR (eCR, December 2022)
- Novel COVID-19 survey takes nation's social, mental "Pulse" (NCHS, July 2020)
- Promoting Dignity, Through Data Accuracy, For The Dead (Paula Braun, *HealthIT Answers*, August 2015)

CDC Information

- COVID-19 Health Equity
- CDC CORE Health Equity Science and Intervention Strategy
- CDC Health Equity

External Resources

- Addressing Gaps in Public Health Reporting of Race and Ethnicity Data for COVID-19 , *Council for State and Territorial Epidemiologists*
- Charting a Course for an Equity-Centered Data System: Recommendations from the National Commission to Transform Public Health Data Systems , *Robert Wood Johnson Foundation*
- Morehouse School of Medicine's Health Equity Tracker

Last Reviewed: July 19, 2023
Source: Centers for Disease Control and Prevention, Office of Public Health Data, Surveillance, and Technology