Deloitte.

Advancing Public Health Aims through Equity-Centered, Data-Driven Decision Making

During the COVID-19 pandemic, public health leaders made unprecedented strides toward equity-driven data capture, analysis, and policymaking, though there remains work to do. What can we learn from these efforts to center equity in public health response?

Why is health equity data key to effective health policy decision-making?

Racism and bias, deep inequities in power, resources, and structural flaws in the health system combined with other social determinants of health (SDoH)[1] have led to quantifiable differences in access to care, quality of care, and health-related outcomes.[i] The COVID-19 pandemic exposed deep cracks in the health foundation, widening existing health disparities. While life expectancy rebounded in peer countries by 2021, life expectancy in the US continued to drop due to disproportionate outcomes among systemically marginalized communities, especially within Black, Indigenous, and Latinx populations[2].[ii]

Achieving equitable health policy and programmatic aims requires an understanding of how structural drivers influence downstream health outcomes. Centering equity in each aspect of the data process enables understanding of systemic root causes, informs targeted policy and program development, and supports effective evaluation.[iii]

1. SDoH are the social, economic, and environmental factors beyond health care that impact individual and community health, well-being, and equity.

2. US life expectancy dropped 2.41 years from 2019-2021.

What are the primary challenges leaders face in employing health equity data?

Data-informed policy and programming relies on a three-pronged approach: collection of quality data, tools/capabilities to analyze that data, and access to and use of that data by leaders to inform decisions. This approach is interconnected and promotes a continuous use of data to measure the effectiveness of policies and programs and ensures they have their intended impact (Figure 1).

Figure 1: Interconnectedness of data processes

Public health and government leaders have made considerable headway since the 1980s as increasing attention and funding has been devoted to understanding disparities in health outcomes and measuring health inequities.[iv] Nevertheless, there are still many challenges with centering health equity in data processes and decision making. In 2016, the Journal of Public Health Management and Practice published a study that found limited national data analysis, small sample sizes for groups of interest, and lack of standard definitions for key characteristics hinder health equity, data-informed action.[v] Additionally, a 2018 Bipartisan Policy Center report noted that barriers to using government data to inform decisions include lack of a shared understanding of agencies' roles in data analysis and varied capacity for data sharing and linkage among agencies.[vi]

Spotlight on the COVID-19 Pandemic: Health equity-driven decision-making in action

The COVID-19 pandemic highlighted gaps in monitoring, access, care, and the ability to disseminate information and interventions to systematically marginalized communities. As COVID-19 spread, agencies needed to identify the most vulnerable populations and their geographical locations. While there has been significant progress towards centering equity and data to drive response efforts, agencies still face limitations with capturing and reporting data on racial disparities related to COVID-19 incidence and mortality, and demographic information related to vaccination.[vii] Many of the current vaccine management and reporting systems lack the robust capabilities necessary to capture demographic breakdowns, such as race and ethnicity.[viii]

What can leaders learn from health-equity-driven decision-making during COVID-19?

Health agency leaders and practitioners can leverage practices and lessons from COVID-19 decision-making to center health equity data in policy, program, and intervention design.

01. **Assemble quality data from the start.** Rely on the assembly of quality data rather than new "perfect" data by leveraging available datasets, including public datasets and websites. Augmenting datasets where possible with other data (e.g., qualitative data, community partner-derived data) can alleviate bias, and carefully merging multiple data sources can result in more comprehensive information. For example, during the pandemic response, many agencies supplemented public data with commercial data to bridge gaps.
02. **Use an equity lens in analysis and interpretation.** Ensure the processes for imputing, processing, analyzing, and interpreting data do not reinforce inequities. Bias can appear in preferences or habits driving measurement practices, data presentation approaches, reference point decisions, group size, target community engagement, and data weighting.[ix]

Leveraging Data for COVID-19 Vaccine Equity. CDC's Immunization Services Division (ISD) provided funding and technical assistance to over 500 partner organizations through the Partnering for Vaccine Equity program to increase equity in vaccination access and uptake in communities of greatest need. Using HealthPrism, Deloitte's proprietary health equity analytics solution, ISD provided partners and jurisdictions with tailored reports, such as geographic areas with high concentrations of relevant population characteristics (e.g., Black residents with an elevated risk of complications from COVID-19 due to underlying health conditions). ISD also helped partners to convert data into action by offering technical assistance via Vaccine Confidence Consults, 1:1 sessions, and group sessions where they discussed how the data revealed access barriers and opportunities to tailor messaging and outreach strategies. Based on data and feedback collected directly from partners, ISD created a Learning Community, which held sessions on topics such as using data to meet community needs, and a Vaccine Resource Hub, which features resources from partners that have been tailored for specific communities. ISD is now in the process of evaluating this approach to improve the program over time.

03. **Improve access to and understanding of data on SDoH.** Utilize existing SDoH frameworks and establish data sharing processes that increase the availability and understanding of equity-centered data among public health and government leaders.
04. **Engage communities and stakeholders continually throughout the entire process.** Partner with targeted populations to incorporate their perspectives in the data process and ensure suitability of the approach. Create feedback-loops with real-time review of health equity-related and programmatic data in communities affected by key interventions to hasten the evaluation, comprehension, socialization, and refinement of the intervention.

Looking ahead: Making health equity data a default driver of policy decisions

While the COVID-19 pandemic intensified existing health inequities, it also showed the potential for health equity data to provide real-time, actionable information to improve public health response on-the-ground. The pandemic has also instilled a greater sense of urgency for equity-driven data processes to be centered in policy and program decision-making. Public health leaders can make big strides toward advancing health equity by adopting a data-informed decision-making approach that relies on centering health equity and interconnecting the assembly, analysis, and utilization of data.

Contact Us: To learn more about equity-centered, data-driven decision-making contact Jeff Burke (jeffburke@deloitte.com) and Jessica Nadler (jnadler@deloitte.com)

i WHO Commission on Social Determinants of Health, World Health Organization. Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health: Commission on Social Determinants of Health Final Report. World Health Organization; Geneva, Switzerland: 2008.

ii Ryan K. Masters, Laudan Y. Aron, and Steven H. Woolf, "Changes in Life Expectancy Between 2019 and 2021 in the United States and 21 Peer Countries" (medRxiv, June 1, 2022), https://doi.org/10.1101/2022.04.05.22273393.

iii Penman-Aguilar, Ana et al. "Measurement of Health Disparities, Health Inequities, and Social Determinants of Health to Support the Advancement of Health Equity." Journal of public health management and practice: JPHMP vol. 22 Suppl 1,Suppl 1 (2016): S33-42. doi:10.1097/PHH.0000000000000373

iv Biermann O, Mwoka et al. Data, Social Determinants, and Better Decision-making for Health: the 3-D

v Penman-Aguilar, Ana et al. "Measurement of Health Disparities, Health Inequities, and Social Determinants of Health to Support the Advancement of Health Equity." Journal of public health management and practice: JPHMP vol. 22 Suppl 1,Suppl 1 (2016): S33-42. doi:10.1097/PHH.0000000000000373

vi Bipartisan Policy Center. Barriers to Using Government Data: Extended Analysis of the U.S. Commission on Evidence-Based Policymaking's Survey of Federal Agencies and Offices. Barriers to Using Government Data | Bipartisan Policy Center.

vii Webb Hooper M, Nápoles AM, Pérez-Stable EJ. COVID-19 and Racial/Ethnic Disparities. JAMA. 2020 Jun 23.

viii Pressman AR, Lockhart SH, Shen Z, Azar KMJ. Measuring and Promoting SARS-CoV-2 Vaccine Equity: Development of a COVID-19 Vaccine Equity Index. Health Equity. 2021 Jul 13;5(1):476-483. doi: 10.1089/heq.2021.0047

ix Penman-Aguilar, Ana et al. "Measurement of Health Disparities, Health Inequities, and Social Determinants of Health to Support the Advancement of Health Equity." Journal of public health management and practice: JPHMP vol. 22 Suppl 1, Suppl 1 (2016): S33-42. doi:10.1097/PHH.000000000000037

About Deloitte
Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee ("DTTL"), its network of member firms, and their related entities. DTTL and each of its member firms are legally separate and independent entities. DTTL (also referred to as "Deloitte Global") does not provide services to clients. In the United States, Deloitte refers to one or more of the US member firms of DTTL, their related entities that operate using the "Deloitte" name in the United States and their respective affiliates. Certain services may not be available to attest clients under the rules and regulations of public accounting. Please see www.deloitte.com/about to learn more about our global network of member firms.

Copyright © 2022 Deloitte Development LLC. All rights reserved.