Data-driven Insights and Technology Adoption Can Improve Health Inequity Challenges

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Abstract

Digital strategies, access to data, and optimal analytics can narrow the health inequity gap in several ways, from helping to streamline difficult-to-navigate medical bureaucracy processes to actually addressing low health literacy in communities.

Introduction

According to the Consumer Technology Association, nearly half of American adults struggle with low health literacy, contributing to health inequity and making it difficult for patients to find, process, or comprehend the basic health information they need to make appropriate health decisions. According to the Agency for Healthcare Research and Quality, only 12% of American adults have proficient health literacy—the ability to obtain, read, understand, and use healthcare information in order to make appropriate health decisions and follow instructions for treatment. In addition, over one-third of adults struggle with everyday health tasks like understanding medication instructions or labels, completing health care forms, or using charts like a childhood immunization schedule. Combining health literacy issues with affordability and availability constraints has led many rural and urban populations to struggle with receiving proper health care.

Data analysis and technology can help address these constraints and other health inequities and offer a better opportunity for care for all.
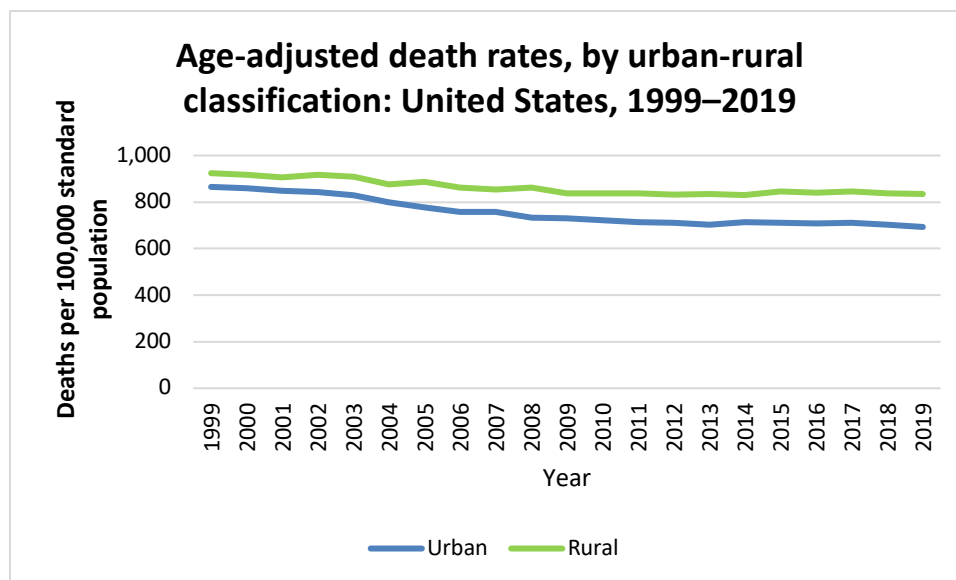
Data accuracy addresses disparities, opens opportunities

Everyone is vulnerable to illness and injury and will seek out healthcare services when in need. According to the Centers for Medicare and Medicaid Services, in 2021, the U.S. devoted $3 trillion to health care (roughly $12,000 per person), accounting for 18% of the U.S. gross domestic product. Despite this wealth of funding for health care, however, today, we still see inequitable distribution of funds to communities.

The pandemic accelerated the need for the healthcare industry to address some of these inequalities through areas like social determinants of health and access to care. When the pandemic forced lockdowns, healthcare organizations scrambled to see patients. An acceleration of telehealth solutions and databases were quickly adopted to track better care of patients and connect with them from a distance. Many communities initially struggled during this time,

including urban and rural regions, with limited access to computers and the Internet. To address this, COVID-19 relief efforts kicked in to bridge these gaps and allowed patients to remain connected in many cases.

Yet despite some advances in equity and accessibility, providing optimal health care remains a challenge in some communities. For instance, according to a 2021 National Center for Health Statistics data brief, between 1999 and 2019, the age-adjusted death rate in rural areas was 7% higher than that of urban areas, and by 2019, rural areas had a 20% higher death rate than urban areas. The data in this data brief validated that many deaths were from heart disease, cancer, and chronic lower respiratory disease. Focusing on these illnesses could help organizations understand their patient population better and possibly help secure funding that addresses these specific problems.

Source: National Center for Health Statistics (NCHS)

A vast amount of data has been gathered regarding underserved areas. The healthcare industry has tools and technology to use studies and data to aid patients. Some organizations and systems, however, have found there to be flaws in data, whether incomplete data sets captured incorrectly or, in some cases, unconscious-biased algorithms. The organizations beginning or that have started to focus on these discrepancies will be able to serve their communities more efficiently and secure better funding.

To that end, the Centers for Disease Control and Prevention social vulnerability index, along with the Health Resources and Services Administration, mapped the regions with the poorest access to health care and highest levels of social vulnerability. To bridge the disparity gap, the Joint Commission, an independent accrediting body for hospitals, introduced new standards on Jan. 1, 2023, aimed at reducing healthcare disparities, calling the effort a quality and safety priority. The commission's new accreditation requirements will apply to organizations in

SOCIAL INNOVATIONS *Journal*

Vol. 20 (2023): Population Health Equity for People with Intellectual Disability, Autism, and Mental Health Challenges and Other Special Populations

ambulatory care, behavioral health care, human services, critical access hospitals, and hospital accreditation programs. These standards create a framework for organizations to interpret and use the data to serve communities better.

Removing barriers

Technology in health care has been around for years, including electronic medical records, surgical tools and equipment, and external monitoring machines. Navigating all the data and efficiently providing care to patients would not be feasible without technology. Today, patients have more options than ever to see a provider, whether in person, via phone call, or a telehealth visit. Technology has created an opportunity for providers to be in multiple locations and connect with patients miles away.

However, while technology may be part of the solution to equalize access and care, many healthcare organizations are hesitant to adopt new solutions because of costs. Funding specifically aimed to assist with health information technology (while limited), however, in some cases, can be supplemented by grant and loan programs focused on issues and initiatives such as health care quality, access to health care, health care workforce, improving efficiency, broadband access, capacity building, and network development. Organizations should explore all funding opportunities, even reexamining the allocation of existing budgets to see if technology investments should be part of broader business initiatives.

Going forward

Urban and rural communities may continue to struggle with health care. However, as healthcare leaders, investors, and policymakers focus more attention on these inequalities through improved data assessment, technology, environmental, social, and governance initiatives, and more, these communities will see improvements. Optimal data management and strategic technology deployment are two key drivers to addressing health inequity challenges and serving the needs of all communities.