



## OVERVIEW | Africa

# Data, social determinants, and better decision-making for health: The report of the 3-D Commission

In April 2020, The Rockefeller Foundation and Boston University School of Public Health launched the Commission on Health Determinants, Data, and Decision-Making (3-D Commission) with the aim of creating a common language among health determinants, data science, and decision-making—both health and non-health related—toward the end of improving the health of populations. The report—an output of more than a year of discussion and research among a multisectoral group of distinguished experts representing academe, the private sector, civil society, and government—explores the key social and economic drivers that influence health outcomes and illustrates how data on social determinants of health (SDoH) can be integrated into decision-making processes. The report argues for a holistic definition of SDoH to drive cross-sectoral collaboration, address health inequities, and promote accountability and offers a set of principles and recommendations designed to support the development of a SDoH-based, data-driven approach to decision-making and foster demand for public and private investment in SDoH.

The recent proliferation of big data presents tremendous potential and opportunity both to understand SDoH better and to guide decision-making to improve the health of individuals and populations. However, a lack of leadership, priority setting, and investment has impeded progress in effective translation of such progress into data-driven action on SDoH. There are multiple challenges to achieving such goals—including data availability, data hierarchy, nonuniform definitions and measurements of SDoH, public mistrust in the use of big data, and lack of engagement of marginalized populations—that are experienced across high-income, middle-income, and low-income countries.

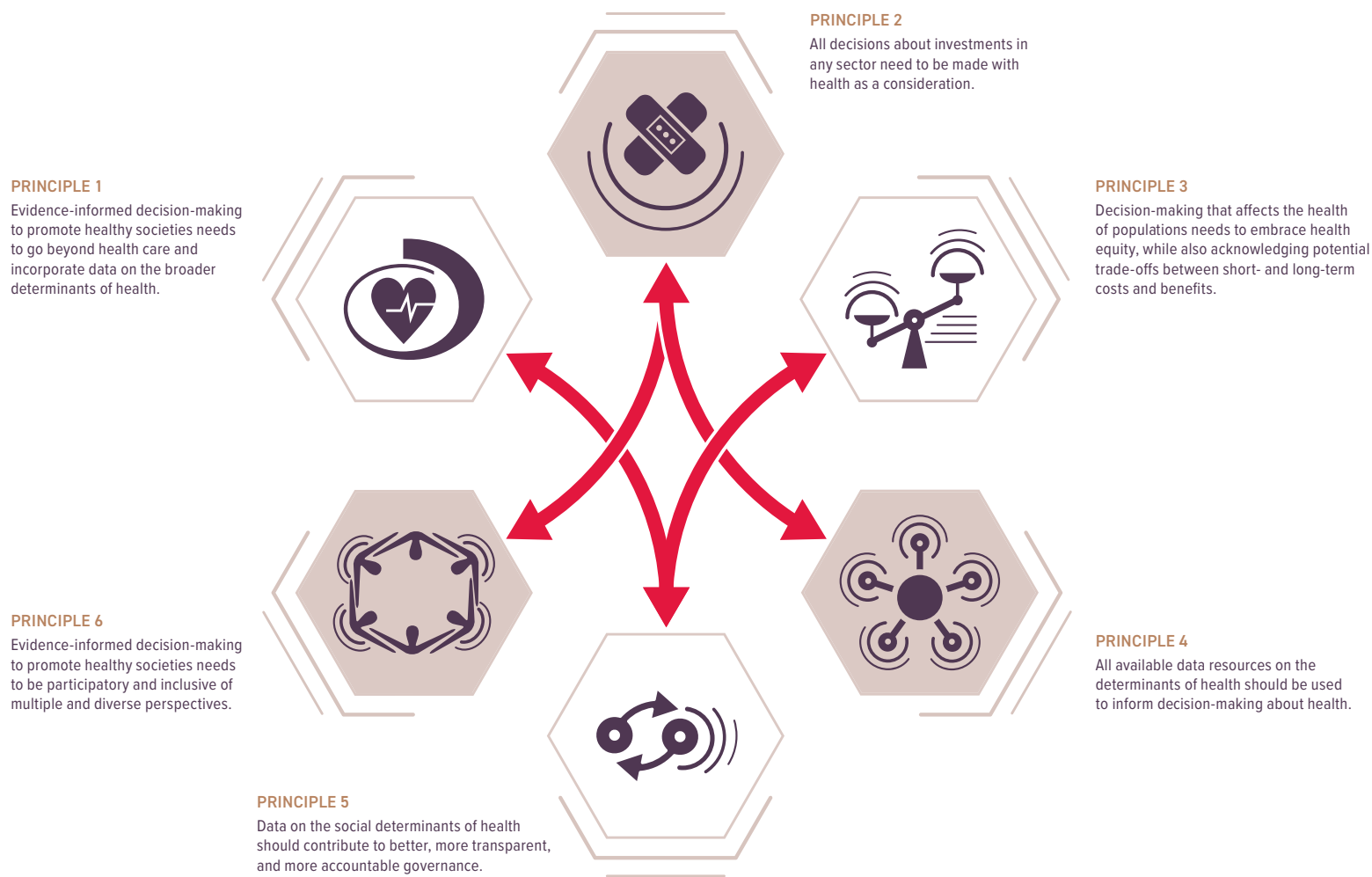
Despite increasing awareness of the need to incorporate SDoH into decision-making by academe and civil society, the uptake of evidence-informed policies and programs that tackle SDoH or build on the growing availability of data to improve health outcomes has been slow. Catalyzing action for health across different sectors requires a common language and an understanding that improved health should translate to returns on financial investment and gains in productivity as well as overall population well-being. Political will among decision-makers is also a critical challenge to enacting SDoH-focused policy. As the impact of policies addressing SDoH will likely be difficult to discern in the near term, promoting population health is a choice that the decision-maker must make consciously, sometimes irrespective of short-term political exigencies.

There are three interconnected, pragmatic areas needed for the vision of the 3-D Commission to translate into actionable policies and programs: political will, technical capacity, and community engagement. First, creating political will requires developing a common language with decision-makers in different sectors, highlighting the potential returns on investment for other sectors, and nuancing and broadening metrics of societal advancement beyond economic indicators. Second, technical capacity is needed to translate a new appreciation for data and SDoH into actionable directives that can be used to improve policy decisions and population health outcomes. Third, engaging communities in decision-making processes can then lead to better decisions being made. Inclusion in the decision-making process means that decision-makers listen to a wide range of stakeholders while formulating decisions: this diversity of thought and perspective helps to compensate for the lack of perfect data. The three areas also require a basic level of trust from the population, which, in turn, can lead to greater levels of trust that will inform, support, and reinforce better decision-making for health.

To improve the health of populations and address health disparities caused by social structural inequities—and exacerbated by COVID-19—a whole-of-society approach is needed. This will require a concerted effort to reframe key issues and adopt common understandings of cross-sector challenges that

affect health. All relevant actors must understand the role that SDoH plays in shaping health outcomes; therefore, critical questions on data collection and use will need to be addressed. This report—and its principles and associated recommendations—offers a roadmap for making these goals a reality.

### 3-D Commission principles



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## 3-D Commission recommendations

- ◉ Relevant international, regional, national, and local entities, including funders, should **systematically collect and make available, in real time, quality data characterizing the full range of determinants of health—including for example, education, housing, economics—to decision-makers and communities locally and nationally.**
- ◉ National governments should **develop transparent systems that collect data about the social determinants of health, and explicitly use these data in decision-making processes.**
- ◉ Relevant international, regional, national, and local entities, including funders, should **embed follow-through monitoring processes to ensure accountability for data-informed decision-making around health.**
- ◉ Relevant international, regional, national, and local entities, including funders, should **center community engagement in acquisition and interpretation of data and make such data widely available to relevant communities.**

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## Case study: The role of medicine tracking and transportation services in shaping health outcomes in Africa

A lack of access to medicines each year contributes to millions of deaths and untold suffering in Africa. HIV/AIDS, tuberculosis, and malaria—all of which are treatable with existing medicines—kill approximately 6 million people every year, mostly in sub-Saharan Africa. This burden ultimately falls on the poor, women and especially children.<sup>1</sup> Throughout sub-Saharan Africa, challenges regarding access to medicines can be attributed to a wide range of factors, including the unavailability or affordability of drugs, the absence of a medicine information and tracking system and a lack of access to transportation services. To address the lack of access to medicines within Africa, decision makers must ensure that data on the social determinants of health contributes to better, more transparent, and more accountable governance and that decisions about investments in any sector are made with health as a consideration.

Medicine information and tracking systems enable doctors and patients to locate health facilities and pharmacies that have medicine in stock.<sup>2</sup> There are countless stories of drugs that have been left to expire at hospitals because of low demand, even though there was a high demand for those same drugs in other areas. By looking at prescription trends, decision makers can estimate which areas have a high demand for a particular drug and where there is low demand and then use this information to determine how to distribute the drugs more efficiently.<sup>3</sup> Decision makers must invest in and use health information systems that connect clinicians and patients to a centralized inventory management system.<sup>4</sup>

Additionally, many individuals in sub-Saharan Africa do not have regular access to essential medicines due to a lack of transportation. Both the availability and affordability of transportation can contribute to delays in access to health care, including medicine.<sup>5</sup> A study in Malawi exploring the main transportation factors affecting access to and delays in reaching healthcare facilities found that a lack of suitable transport, finances, and prolonged travel time to healthcare centers all pose barriers to timely access to health care. To address this issue, decision makers must develop and implement policies that improve the availability of transportation between rural health centers and district hospitals, and between the district and central hospitals. Doing so could help overcome the transportation barriers to accessing health care and medicine.<sup>6</sup>

The 3-D Commission recommends that decision makers should ensure that data on the determinants of health are current, re-usable, and accessible—and also reflect the perspectives of individuals from the communities where the data are generated. In addition, decisions about investments in any sector, including transportation, should be made with health as a consideration.

1 Quick, Jonathan D et al. Medicine supply in Africa. *BMJ (Clinical research ed.)* vol. 331,7519 (2005): 709-10. doi:10.1136/bmj.331.7519.709 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1239960/>

2 Rockson, Gregory. A Data Driven Approach to Increasing Access to Medicines in Africa. *MyPharma*. <https://mpharma.com/2014/11/17/a-data-driven-approach-to-increasing-access-to-medicines-in-africa/>

3 Ibid.

4 Ibid.

5 Varela, Carlos et al. Transportation barriers to access health care for surgical conditions in Malawi a cross sectional nationwide household survey. *BMC public Health* vol. 19,1 264. 5 Mar. 2019. doi:10.1186/s12889-019-6577-8 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6402149/>

6 Rockson, Gregory. A Data Driven Approach to Increasing Access to Medicines in Africa. *MyPharma*. <https://mpharma.com/2014/11/17/a-data-driven-approach-to-increasing-access-to-medicines-in-africa/>