VIEWPOINT

Addressing Social Determinants to Improve Population Health
The Balance Between Clinical Care and Public Health

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In 2015, a pediatrician in Flint, Michigan, recognized the relationship between an increase in her patients' blood lead levels and the city's recent change in water supply. The ensuing public health crisis was as revealing as it was tragic. Large numbers of children were found to have blood lead levels that put them at risk for neurotoxic sequelae, and an entire community became dependent on bottled water.

Four years later, the US Preventive Services Task Force (USPSTF) released its updated recommendation statement on screening children for elevated lead levels in the blood.[1] Although the USPSTF acknowledged the harm of elevated lead levels and confirmed the accuracy of lead screening tests, it found evidence for treating screen-detected individuals to be virtually nonexistent. On this basis, the USPSTF concluded that the evidence was insufficient to assess the balance of benefits and harms of screening for lead levels in children.

Although the Flint tragedy and the USPSTF statement seem at odds with one another, an explanation for this apparent dissonance exists: public health problems do not necessarily have effective individual clinical solutions. There may be substantial differences in the value of a public health initiative, such as screening a water supply for lead contamination, and a clinical preventive service, such as screening and treating children for elevated lead levels in the blood. This distinction represents a critical component of the current dialogue on how the medical community—with its increasing emphasis on population health and value-based care—can most effectively address social determinants of health.

> [F]orce-fitting strategies to address social determinants of health into traditional models of clinical care risks misdirecting limited resources into programs that may ultimately prove inefficient or ineffective.

Social determinants of health describes the social and economic circumstances in which people live and work and how such circumstances influence health and quality of life.[2] Social determinants of health is also fundamentally a public health concept. Although the concept has existed for decades, the last 20 years has seen a broadening of the discussion about social determinants from one that focuses on the general link between poverty and health to one that involves specific components of economic stability such as housing and food security, educational opportunity, neighborhood safety, and multiple dimensions of social capital.[2] More recently, there has been increasing acknowledgment that social determinants explain more of the variance in health outcomes and disparities than do narrower traditional constructs of access to and quality of medical care.[3]

With this acknowledgment has come an increased focus on how to address social determinants to improve population health. *Population health*, defined as health outcomes of groups of individuals and the distribution of individual outcomes within such groups,[4] inherently focuses on root causes of health and disease, which exert their biological effects on individuals at an aggregate level.[4] The relationships between community violence and mental health,[5] early childhood education and developmental outcomes,[6] and access to care and cardiovascular health[7] are each examples of population health constructs. To foster health at the population level, population health is best seen as a hybrid of public health and clinical medicine, drawing from the traditions of both approaches.

Today, accountable care organizations (ACOs) are designed to both improve health care quality and control costs. Because most ACOs receive incentives to achieve these goals, they have financial impetus to address the health determinants of the groups for which they provide care. For many Medicare and commercial ACOs, a principal driver of performance has been engaging in traditional clinical preventive services (screening for malignancy) and chronic disease management (treating hypertension). However, the root causes of many health problems (and, therefore, costs) are social. Although this frame can be applied across the socioeconomic and age spectra, it is particularly relevant to Medicaid populations, which, in contrast to Medicare and commercial populations, tend to be younger and more socioeconomically disadvantaged. Thus, exactly how ACOs, particularly Medicaid ACOs, pursue the goal of addressing these socially based root causes—essentially, how they address population health—deserves scrutiny.

A Medicaid ACO, for example, may serve an urban population with high levels of food insecurity, underemployment, and lack of access to affordable housing. Although each of these social factors is known to influence an individual's health on a population level, complex and circuitous pathways exist between these upstream social determinants and downstream health outcomes. Each challenge, therefore, is best approached by a unique combination of clinical and public health strategies. For example, although individual-level screening for depression

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has solid evidence and is recommended by the USPSTF,[8] the value of depression screening depends largely on the availability of high-quality mental health services. Even in the presence of such resources, many would argue that for certain populations, this approach may not be as important as community-based initiatives to reduce the psychological sequelae or incidence of community violence.[5]

Although these distinctions are meant to draw lines between clinical and public health solutions, they do not represent "either-or" dichotomies. The distinctions should, however, give pause to ACO programs that approach population-level social determinants solely by addressing individual social needs on a patient-by-patient basis. While meeting individual needs may be an important aspect of holistic patient care, these efforts are likely insufficient levers to improve overall population health. For example, programs that promote screening and referral for social determinants of health, if implemented according to the best available evidence,[9] may help individuals identified as having specific health-related social needs manage specific challenges. However, they are, at best, complementary to public health programs that address social determinants on an ecological, or more upstream, level. Simply importing public health concepts into clinical care as stand-alone programs, and changing intervention targets from populations to individuals, reduces the intentionally broad population health model. More importantly, force-fitting strategies to address social determinants of health into traditional models of clinical care risks misdirecting limited resources into programs that may ultimately prove inefficient or ineffective.

Although the medical community's embracing of social determinants of health is long overdue, programs that address the downstream health consequences of social adversities cannot be the principal strategy. The Flint lead crisis is instructive because it demonstrates the importance of sound public health practice. But it is also instructive because it demonstrates the potential danger of relying exclusively on public health strategies as the defense between people and disease. Unlike childhood lead exposure (for which the individual-level screening approach is almost completely devoid of evidence), other social determinants of health have potentially viable approaches on both the clinical and public health levels. To date, however, the preponderance of research on these social determinants has been observational. Of the published interventional studies relevant to health care delivery, few have examined health outcomes or costs. Thus, the evidence for addressing social determinants from within health systems is limited. In planning future work, researchers and health system leaders should acknowledge the public health origins of the social determinants model, be thoughtful and realistic about the value of new programs designed to address social determinants, and prioritize rigorous evaluation of program effectiveness.

As ACOs begin to address population health, adapting public health approaches involving health promotion, disease prevention, and chronic illness care to the ACO model could yield substantial results on health outcomes, and perhaps even cost. However, attempting to incorporate programs to address these priorities into conventional clinical models likely will not. The creation of financial incentives for addressing social determinants within Medicaid ACOs in particular represents an opportunity for cross-sector collaboration between health systems and other entities—such as community-based organizations or local or state government—to promote sound policy development, regulation, and advocacy.

While health care organizations may not be equipped to address each of the root causes of their patients' conditions, they need to broaden their perspective on how to address social determinants of health and use their expertise to influence initiatives on education, housing, employment, and other important health-related social issues that take place beyond their immediate clinical purview. As the medical community moves to implement the new National Academy of Medicine guidelines on integrating social care into health care delivery,[10] the Flint experience with lead in the water supply and the USPSTF statement on screening for lead in children should serve as important reminders of the need to balance clinical care and public health practice and an example of the necessity, when aiming to address social determinants, of going upstream, as close as possible to the source.

ARTICLE INFORMATION

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