Anchor Institutions: Best Practices to Address Social Needs and Social Determinants of Health

Howard K. Koh, MD, MPH, Amy Bantham, MS, MPP, Alan C. Geller, RN, MPH, Mark A. Rukavina, MBA, Karen M. Emmons, PhD, Pamela Yatsko, MA, and Robert Restuccia, MPA

Anchor institutions—large, place-based establishments—invest in their surrounding communities as a way of doing business. Anchor “meds” (anchor institutions dedicated to health) that address social needs and social determinants of health have generated considerable community-based activity over the past several decades.

Yet to date, virtually no research has analyzed their current status or effect on community health. To assess the current state and potential best practices of anchor meds, we conducted a search of the literature, a review of Web sites and related public documents of all declared anchor meds in the country, and interviews with 14 key informants.

We identified potential best practices in adopting, operationalizing, and implementing an anchor mission and using specific social determinants of health strategies, noting early outcomes and lessons learned. Future dedicated research can bring heightened attention to this emerging force for community health. (Am J Public Health. Published online ahead of print January 16, 2020: e1–e8. doi:10.2105/AJPH.2019.305472)

ABOUT THE AUTHORS
Howard K. Koh, Amy Bantham, Alan C. Geller, Karen M. Emmons, and Pamela Yatsko are with the Harvard T. H. Chan School of Public Health, Boston, MA. Mark A. Rukavina and Robert Restuccia are with Community Catalyst, Boston, MA.

Correspondence should be sent to Howard K. Koh, MD, MPH, Harvard T. H. Chan School of Public Health, 677 Huntington Ave., Boston, MA 02115 (e-mail: hkoh@hsph.harvard.edu). Reprints can be ordered at http://www.ajph.org by clicking the “Reprints” link.

This article was accepted October 25, 2019.
doi: 10.2105/AJPH.2019.305472

“Anchor Institutions”—universities, hospitals, and other large, place-based organizations—invest in their communities as a way of doing business. Anchor “meds” (anchor institutions dedicated to health) that address social needs and social determinants of health have generated considerable community-based activity over the past several decades.

Yet to date, virtually no research has analyzed their current status or effect on community health. To assess the current state and potential best practices of anchor meds, we conducted a search of the literature, a review of Web sites and related public documents of all declared anchor meds in the country, and interviews with 14 key informants.

We identified potential best practices in adopting, operationalizing, and implementing an anchor mission and using specific social determinants of health strategies, noting early outcomes and lessons learned. Future dedicated research can bring heightened attention to this emerging force for community health. (Am J Public Health. Published online ahead of print January 16, 2020: e1–e8. doi:10.2105/AJPH.2019.305472)

ABOUT THE AUTHORS
Howard K. Koh, Amy Bantham, Alan C. Geller, Karen M. Emmons, and Pamela Yatsko are with the Harvard T. H. Chan School of Public Health, Boston, MA. Mark A. Rukavina and Robert Restuccia are with Community Catalyst, Boston, MA.

Correspondence should be sent to Howard K. Koh, MD, MPH, Harvard T. H. Chan School of Public Health, 677 Huntington Ave., Boston, MA 02115 (e-mail: hkoh@hsph.harvard.edu). Reprints can be ordered at http://www.ajph.org by clicking the “Reprints” link.

This article was accepted October 25, 2019.
doi: 10.2105/AJPH.2019.305472
“THE ROLE OF ANCHORS IN COMMUNITY REVITALIZATION: STRATEGIC FRAMEWORK” BY THE INITIATIVE FOR A COMPETITIVE INNER CITY

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchaser</td>
<td>Directing institutional purchasing toward local businesses</td>
</tr>
<tr>
<td>Employer</td>
<td>Offering employment opportunities to local residents</td>
</tr>
<tr>
<td>Workforce developer</td>
<td>Addressing workforce needs of the cluster</td>
</tr>
<tr>
<td>Cluster anchor</td>
<td>Stimulating growth of related businesses and institutions in the community</td>
</tr>
<tr>
<td>Community infrastructure builder</td>
<td>Providing resources and expertise to build local community capacity</td>
</tr>
<tr>
<td>Core product or service</td>
<td>Tailoring core products/services to serve the community</td>
</tr>
<tr>
<td>Real estate developer</td>
<td>Using real estate development to anchor local economic growth</td>
</tr>
</tbody>
</table>

Source: Initiative for a Competitive Inner City. 9

METHODS

We searched 3 major databases (MEDLINE and PubMed, Embase, and Web of Science) for all extant publications related specifically to anchor medical institutions, using individual search terms (e.g., “anchor institutions,” “anchor mission,” “anchor strategy”) as well as a combination of terms (e.g., “community-institutional relations,” “community relations,” “urban health services/organization and administration,” “urban health, public relations, and anchor institutions”). Although we identified a number of articles addressing related topics such as hospital community benefits, only 2 published articles 15,16 specifically mentioned anchor med—as both commentaries.

Hence, we pivoted to extensive Internet searches and identified 42 self-identified anchor med, all part of the non-profit anchor network (Table C [available as a supplement to the online version of this article at http://www.ajph.org]). 17 About two thirds are health systems (i.e., more than 1 hospital sharing common governance). Collectively, these institutions have more than $150 billion in investment assets, purchase more than $50 billion annually, and employ more than 1 million people. 17

We then examined individual Web sites for each identified anchor med. We reviewed relevant online reports, articles, linked documents, and other publicly available materials in their organizational mission and vision statements; procedures for adopting the anchor mission; funds and types of commitments to address SDOH; other evidence of resource commitment; and outcomes on behaviors and health costs, if available. We attempted to confirm any statements of resource commitments with public media announcements and newspaper articles.

To identify exemplar institutions, we also conducted semi-structured interviews with leaders at the Democracy Collaborative and used a snowball sample to identify 9 institutions that had anchor missions widely viewed as robust. We then interviewed leaders at these 9 institutions to gain a deeper understanding of their initiatives. From them, we identified 3 for inclusion as mini-case studies based on the extent and longevity of their anchor activities. We also identified others that served as examples of specific aspects of the anchor mission. In total, we conducted interviews with 14 anchor med leaders to probe the process of, and reasons for, adopting an anchor mission, its implementation, and the types and outcomes of commitments.

RESULTS

In recent years, several structural and policy changes have shaped community interactions and potential investments by health institutions. The search for alternative payment models to fee-for-service reimbursement systems, the advent of managed care, and the 2010 Affordable Care Act (ACA; Pub L No. 111–148), for example, have accelerated national attention to value-based purchasing dependent on patient outcomes, not volume.

Moreover, certificate of need programs in 35 states and the District of Columbia offer 18 a way for hospitals to offer community resources as part of formal conditions for expanding services or undertaking significant capital projects. For example, Massachusetts, which may have been the first US state to establish voluntary guidelines for community benefits, uses a comprehensive and formal process that pushes organizations to consider community responsibilities. A hospital seeking physical expansion, for example, must first have its proposal approved by the state’s public health council, with public hearings often featuring advocates highlighting community concerns. Updated 2017 Massachusetts regulations encourage applicants to improve the health of disadvantaged populations 19 by addressing priority SDOH areas, with 5% of the hospital’s capital project costs allocated for community health initiatives. 20

The ACA created new community benefit standards that nonprofit hospitals must meet to receive federal tax exemptions (more than 20 states have also established community benefit requirements for state tax exemptions and nonprofit status). 21,22 The ACA requires that all US tax-exempt hospitals conduct a community health needs assessment at least every 3 years 23 and establish a plan to prioritize needs, set targets, and engage community representatives in aligning services, many related to SDOH. Such assessments can guide future hospital activities because most currently direct community benefit activities toward the patient, not the community. 24 Also, ongoing congressional scrutiny of nonprofit hospitals, 25 as well as legal decisions before and after ACA’s passage, underscore the necessity for nonprofit hospitals to adhere to community benefit guidelines. For example, in 2017, the Internal Revenue Service prominently announced revoking a nonprofit hospital’s federal tax exemption for failing to conduct and make available a community health needs assessment. 26

All these trends have bolstered consideration of Porter and Kramer’s “shared value”...
concepts, which views business efforts to advance social outcomes as integral to company operations. Such a strategy, distinct from more traditional models of philanthropy or even corporate social responsibility, motivates anchor med to contribute not just to the health of the community but also potentially to that of their employees, consumers, and the environment. Doing so enables hospitals to both promote health equity by addressing SDOH (Table 1) and enhance their own business reputations, which can attract employees and patients.

Although most mission or vision statements of the 42 anchor med reviewed through our Internet search note the importance of community, only about 15 mention “anchor” on their Web site; none explicitly use the term in their mission statements. Without formal certification or standards, the organization usually takes on the anchor designation by itself, usually without a formal board vote.

One exception is the Rush University Medical Center. In 2016, the Rush University Medical Center’s board changed its corporate mission from “be the best in patient care” to “improving health,” operationalized by a senior leadership team overseeing human resources, budgets, hiring, local procurement, community engagement, and metrics. This process explicitly started with employee consultations about how to support stronger neighborhoods. As of fiscal year 2018, more than 16% of new hires, close to their goal of 18%, came from Chicago’s West Side, the low-wealth community where Rush University Medical Center is targeting its efforts.

To enhance broader collaboration, Rush University Medical Center also leads CASE (Chicago Anchors for a Strong Economy), a coalition of medical and community stakeholders harnessing the collective power of 16 Chicago anchor institutions to boost the city’s overall economy. Efforts by the nonprofit public-private partnership World Business Chicago channel financial resources to CASE to support procurement spending for local businesses. Between 2014 and mid-2017, such efforts led to nearly 50 multiyear contracts worth $51.6 million; further information on the impact on minority groups and social outcomes is needed.

The Democracy Collaborative has recently recommended anchor planning and action through extensive toolkits (each more than 100 pages) regarding (1) workforce and inclusive local hiring to support employment opportunities and job training for local low-income and minority residents, often in partnership with community-based groups; (2) purchasing and inclusive local sourcing to revamp procurement policies to prioritize diverse local suppliers (especially because US health systems spend less than 2% of the estimated $340 billion annually on goods and services through minority- and women-owned business enterprises [MWBEs]); and (3) investment and place-based investing to identify opportunities for bringing resources into community economic development projects through a range of financial assets. The toolkits offer various metrics to track outcomes.

Implementing the Anchor Mission

We highlight several prominent anchor med. To begin, however, we note that almost all available data focus on inputs (e.g., resources invested in SDOH programs or the number of people receiving social needs screenings) with virtually no evaluation information on outputs such as health outcomes. Many organizations await research to demonstrate the long-term benefits of addressing SDOH and health inequities and have chosen anchor strategies to confront ongoing pressing needs.

Kaiser Permanente. More than 15 years ago, Kaiser Permanente, which is one of the largest US not-for-profit health plans and serves more than 12 million members in 39 hospitals, began to increase access to high-quality produce by, for example, updating healthy nutrition standards for food purchased for meetings and events as well as hospital-based farmers’ markets. In 2005, Kaiser Permanente launched the Kaiser Permanente Community Health Initiative, a community-level approach to reduce obesity in low-wealth neighborhoods through healthy eating and active living. The Community Health Initiative invested more than $60 million in 58 communities in Colorado, California, the Pacific Northwest, Maryland, and Georgia. A 2018 published evaluation reviewing strategies affecting more than 700,000 individuals found that almost 70% (98 of 143) showed positive behavior change. Higher-dose strategies showed that the greatest impact occurred with respect to youths in schools: nearly 40% of communities documented increased youth physical activity, although the evaluation did not measure obesity reductions. Implementation challenges included achieving the “dose” (scale) needed to create positive population health effects.

Kaiser Permanente then expanded its SDOH commitments and funded housing units for low-income residents, joined a bipartisan coalition (Mayors and CEOs for US Housing Investment), and supported state and local affordable housing policies. In 2018, as part of impact investing initiatives that included committing $200 million via its Thriving Communities Fund, it partnered with local nonprofit housing developer Enterprise Community Partners in a joint equity fund that led to purchasing and upgrading a 41-unit affordable apartment building in East Oakland (near Kaiser Permanente’s national headquarters). The partnership also yielded a $100 million loan fund to build and maintain affordable housing for low-wealth individuals in regions where Kaiser Permanente operates.

Kaiser Permanente has additionally used its purchasing power to support MWBEs through a national supplier diversity program, spending more than $1 billion annually since 2014. Moreover, it revamped its energy strategy with the goal of attaining carbon neutrality by 2020, including renewable energy investments sufficient to power 27 of its hospitals, utility-scale solar and wind farms, and one of the country’s largest battery energy storage systems.

ProMedica. In 2009, ProMedica, a not-for-profit health system headquartered in Toledo, Ohio, embraced an “all-in” anchor mission. Motivated by, among other factors, the 2008 national economic downturn that exacerbated local social needs in northwestern Ohio and southeastern Michigan, ProMedica adopted a new mission statement: “Whenever you are, and wherever you live in our extensive service area, our mission is to improve your health and well-being.” To support this mission, ProMedica revamped its organizational infrastructure with respect to strategic planning, staffing, and budgeting.

Published online ahead of print January 16, 2020 AJPH Koh et al. Peer Reviewed Analytic Essays
In 2013, ProMedica addressed hunger by screening hospital patients for food insecurity. Two years later, it established a “food pharmacy” (where patients could fill prescriptions for healthy food) as well as a nonprofit grocery store (with a teaching kitchen). Internal reports note that more than 2200 of more than 57,000 patients screened positive for food insecurity in 2016 and that nearly half of Medicaid patients who successfully accessed ProMedica’s food pharmacy had substantially decreased hospital readmission rates and monthly member costs; such preliminary results await more formal evaluation.

In the past several years, ProMedica has expanded its SDOH screening (inpatient and outpatient) as well as other efforts to address education, employment, housing, transportation, and violence. For example, it agreed to contribute $11.5 million and raise an additional $10 million to strengthen community education, nutrition, employment, and housing as part of the Ebeid Neighborhood Promise; opened a Financial Opportunity Center (2016) offering access to financial coaching; and partnered with a local nonprofit to create a $25 million, place-based impact pool for capital projects and local MWBEs in low-income neighborhoods. Metrics include tracking reduction in low birth weight babies and infant mortality, numbers of providers performing screening, needs resolved for patients identified with SDOH issues.
improved credit scores, and jobs created. Nationally, ProMedica has partnered with the AARP Foundation to start the Root Cause Coalition, which now involves 65 organizations committed to addressing SDOH and health equity.48

The Greater University Circle Initiative. In a major collaboration joining eds, meds, and civic organizations, the Cleveland Foundation (Cleveland, OH) and local advocates helped create, in 2005, the Greater University Circle Initiative (GUCI), bringing together Case Western Reserve University, University Hospitals, and the Cleveland Clinic.49 Their goal is to boost income and opportunities for the 60,000 residents of the 7 low-income neighborhoods surrounding them. Working to overcome previous inclinations to view each other as rivals, GUCI partners have, over time, worked collaboratively to generate funds and pool resources “to buy locally, hire locally, live locally, and connect” through projects related to housing, transit infrastructure, workforce development, and education and training.49 Collaboration on transportation infrastructure projects alone, amounting to $44 million, allowed relocation of a rapid transit station to, among other things, facilitate access to health care facilities;49 evaluation is needed to gauge further outcomes.

GUCI partners have also engaged in various “hire local” initiatives to spur employment of residents from target low-wealth neighborhoods. This included the 2009 launch of 3 “evergreen cooperatives” (local, cooperatively owned businesses): a commercial laundry, a renewable energy equipment installation firm, and a produce cultivation company.

In related efforts, GUCI anchors, which procured $3.6 billion worth of goods and services in 2017, are individually and jointly increasing purchases from local vendors in their overall supplier pool while also working to attract businesses to their neighborhoods.50 During construction of 5 new medical facilities in the early 2000s, University Hospitals, a GUCI anchor, surpassed important procurement standards by exceeding goals of spending 80% of the $1.2 billion project with local and regional suppliers, 15% with minority-owned firms, and 5% with women-owned operations.51 University Hospitals’ practice now encourages existing large suppliers to subcontract to local vendors or relocate to Cleveland. University Hospitals’ policy also requires that 1 or more MWBE participate in the bidding process for any contract more than $20,000.51 Of the $852 million University Hospitals spent on goods and services (2015), some $62 million flowed to MWBE suppliers and $199 million to Cleveland vendors.51 To foster accountability, the overall supply chain leadership (rather than a single department or position) is responsible for meeting local-sourcing goals, and the University Hospitals board of directors receives quarterly updates.51 Cleveland Clinic now also requires select large vendors to procure 10% of the total contract from local businesses;50 1 report notes $131 million for certified diverse suppliers in 2016.52

A 7-year internal evaluation report notes outcomes.50 With respect to increasing the local share of total anchor procurement, from 2010 to 2017 the overall value of purchasing increased 20% and purchases from businesses in the surrounding county increased 27%—although, purchases from businesses within the city itself decreased 26%.50 Although the Greater Circle Living program aims to support new residents in target neighborhoods with home purchases, rental assistance, home improvements, and exterior repairs, residential construction can also involve higher-income buyers, leaving some residents in fear of being priced out.50

Other examples. Developments across the country, some very recent, reflect rising commitment to anchor themes. Although more detailed description is not possible here, one example is the Atlanta Regional Collaboration for Health Improvement, founded in 2011 by United Way, Atlanta Regional Commission, and the Georgia Health Policy Center, which brings 100 or more partners together in a 28-year strategy to improve regional health.53 Also, in 2018, Intermountain Healthcare, Utah’s largest private employer with nearly 40,000 employees, caring for 45% of the state’s population,53 launched the Utah Alliance for the Determinants of Health, a $12-million, 3-year investment for community health, health care access, and reduced health care costs for high-risk Medicaid beneficiaries in 2 underserved counties.54 Moreover, the Newark Anchor Collaborative (2018) made commitments that include enhanced local procurement and accepting the city government’s challenge to provide jobs for 2020 unemployed Newark residents by 2020.57 Meanwhile lessons from the Kaiser Permanent Network Community Health Initiative have extended to nearly 60 communities in Colorado, California, the Pacific Northwest, Maryland, and Georgia.55

Using Commitments to Social Determinants

Local hiring. Partners Health System, which includes Massachusetts General Hospital and Brigham and Women’s Hospital, launched its Partners in Career and Workforce Development program (2003) to provide training, internships, career counseling, job placement, and sustaining wages for low-income community residents.58 Efforts include youth training and internship programs as well as workforce development programs for existing employees, such as higher education tuition reimbursement, loan forgiveness, and online college preparation. In fiscal year 2016, Partners Health System invested $223 million in community health programs targeting low-income patients, accounting for 4.2% of its total patient care–related spending that year.58

Local sourcing. Parkland Health and Hospital System (Dallas, TX) has embedded supplier diversity into its local-sourcing and contracting practices, including integrating a full-time supplier diversity manager into the hospital system’s supply chain operations, contacting vendors and advocacy agencies about open bids, and offering technical assistance on risk and insurance issues.59 As part of its more than $1 billion state–of–the–art hospital construction project completed in 2014, Parkland Health and Hospital System awarded MWBE vendors some $400 million in contracts and exceeded its 35% MWBE participation goal.60 Further information is needed about these strategies’ effect on improved community health.

Place-based investments. Place-based impact investments—equity venture capital, loans, bonds, or other financial instruments—can theoretically be self-sustaining, if return is at least equal to investment.61 Options include investing through an impact investment fund or through financial intermediaries such as community development financial institutions and banks,
partnering with nonprofits or local businesses and developers, or investing directly in specific projects. One report notes the importance of organizations understanding various investing methods and involving residents in pinpointing investment priorities.  

Impact investments commonly address housing insecurity. For example, Dignity Health, which in 2017 devoted some 45% of its $97 million in community development lending to affordable housing, has committed to investing up to 5% of its overall investment portfolio to community health nonprofit organizations. Recently merging with the Catholic Health Initiative to create CommonSpirit Health (which operates 39 hospitals), Dignity Health, since the early 1990s, has provided more than $245 million in loans to support affordable housing, as well as healthy food projects and small business initiatives for low-income people. Dignity Health’s approach also recognizes the potential long-term consequences on gentrification; many communities remain wary of displacement of long-time residents and small businesses.

Trinity Health, headquartered in Maryland with acute care hospitals and other facilities in 7 states, aims to invest up to 5% of its long-term reserve fund with intermediaries such as community development financial institutions to support low-income communities. Since 2008, it has spent more than $26 million, or about 2.5% of its $1 billion long-term reserve fund, to support community projects such as affordable housing and economic development.

**Evaluation.** Crucial questions center on how best to monitor outcomes and impact. Standardized metrics for monitoring outcomes, especially health outcomes, need dedicated development. The Democracy Collaborative’s Anchor Dashboard (Table 1) serves as a starting point for core measures that institutions and low-income communities care about and find relevant; domains include poverty, segregation, availability of modest-cost housing, and levels of income inequality. Few indicators, however, are specifically dedicated to health. Tracking outcomes not only monitor progress but also flag developments that could run counter to the goals of anchor strategies, such as gentrification, which can push low-income groups out of the community. Any evaluation should involve communities to assess anchor med activity. Aligning assessments from the community health needs assessment process could also offer an integrated way to determine action priorities.

Anchor meds can also integrate evaluation and activities with other national community health improvement efforts. The Center for Disease Control and Prevention’s HI-5 initiative focuses on 14 evidence-based, community-wide, population health interventions. CityHealth (an initiative of the de Beaumont Foundation and Kaiser Permanente) rates the nation’s 40 largest cities based on their adoption of 9 evidence-based policies to improve community health. Other evaluation-related efforts include Kaiser Permanente’s collaboration with the Robert Wood Johnson Foundation to build consensus on metrics for measuring SDOH outcomes (Social Intervention Research and Evaluations Network, or SIREN) as well as Kaiser Permanente’s recently launched social program benchmarking initiative (known as Social Needs Network for Evaluation and Translation, or SONNET).

**DISCUSSION**

This analysis provides some initial insights into anchor meds, including the importance of (1) a strong anchor mission and narrative; (2) robust partnerships with community institutions that have the readiness, capacity, and commitment to engage; (3) willingness to commit years of time engaging key internal and external audiences because “change happens at the speed of trust”; and (4) identifying collaborative projects attractive enough to gain private and public funding. These efforts broaden the current definition of community health improvement.

Our analysis can also stimulate further discussion on options regarding the relative responsibilities and roles of private institutions and government in addressing SDOH. Such discussion is vital in an era when more attention is being focused on value-based payment for care and population health management. Policy incentives from state and local government leaders could determine how anchor meds grow, or transition to, another platform to address SDOH and work with policymakers to drive positive social change. Exploring future directions for place-based investments will be critical for communities.

Challenges for anchor meds remain considerable, however. Making the concept take hold will require overcoming longstanding mistrust between institutions and community members. Most anchor meds are health systems; it remains to be seen how well individual hospitals can mobilize and use resources for community impact. Nonalignment of anchor priorities can create competition between anchors in the marketplace and disagreements about credit and branding. Formal standards and criteria are necessary to clarify the breadth and depth of community commitments and to identify how best to monitor key outcomes. Articulating a model of change for the anchor institution movement could help evaluate future approaches. Developing measurable indicators demonstrating improved living conditions for communities without displacing poor residents through gentrification remains a major priority. Although a number of anchor meds have substantial commitments and activities, few, if any, have data on outcomes related to health and health equity. Outcomes noted in internal reports need validation and more formal evaluation in the peer-reviewed literature.

Despite these challenges, forces of community need, advocacy, politics, and business strategy have clearly begun converging to animate the growth and development of anchor meds. More dedicated research can define how they can shape the future of population health and health equity.
CONTRIBUTORS
H. K. Koh conceptualized the study and oversaw data collection and analysis, writing, and revisions. A. Bantham and P. Yatsko contributed to data collection and key informant interviews. A. Bantham, P. Yatsko, A. C. Geller, K. M. Emmons, M. A. Rukavina, and R. Restuccia contributed to data analysis and critical review of the essay. A. Bantham, P. Yatsko, A. C. Geller, and K. M. Emmons contributed to writing and revisions. A. C. Geller and K. M. Emmons contributed to study methodology. M. A. Rukavina and R. Restuccia contributed to data analysis and revisions. All authors, except P. R. Yatsko, who passed away before the essay was completed, approved the final version to be published.

ACKNOWLEDGMENTS
This work was supported in part by the Robert Wood Johnson Foundation (award 74275 to K. M. E. and A. C. G.) and the Harvard Catalyst Community Engagement Program, Harvard Clinical and Translation Science Center (award UL1TR002541 to K. M. E. and H. K. K.). We thank Kirk Vanda, MBA, for his invaluable help. We dedicate this article to the life and legacy of Rob Restuccia.

Note. The opinions expressed in this essay represent the personal views of the authors and not necessarily those of their employers or the Robert Wood Johnson Foundation. Any reference to a business, product, or service does not represent endorsement by the authors and not necessarily those of their employers or the Robert Wood Johnson Foundation. Any reference to a business, product, or service does not represent endorsement by the authors and not necessarily those of their employers or the Robert Wood Johnson Foundation.

CONFLICTS OF INTEREST
The authors declare no conflict of interest or financial conflicts.

HUMAN PARTICIPANT PROTECTION
No protocol approval was necessary because no human participants were involved in this study.

REFERENCES