Targeting Health-Related Social Risks in the Clinical Setting:

New Policy Momentum and Practice Considerations

Blake N. Shultz,¹
Carol R. Oladele,² Ira L. Leeds,²
Abbe R. Gluck,³ and Cary P.
Gross²

1: MASS GENERAL BRIGHAM, BOSTON, MA, USA; 2: YALE SCHOOL OF MEDICINE, NEW HAVEN, CT, USA; 3: YALE LAW SCHOOL, NEW HAVEN, CT, USA

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Abstract: The federal government is funding a sea change in health care by investing in interventions targeting social determinants of health, which are significant contributors to illness and health inequity. This funding power has encouraged states, professional and accreditation organizations, health care entities, and providers to focus heavily on social determinants. We examine how this shift in focus affects clinical practice in the fields of oncology and emergency medicine, and highlight potential areas of reform.

linical medicine is in the midst of a dramatic re-conceptualization. There is a general consensus in the scientific community that access to conventional medical care plays only a small role in population health outcomes — by some estimates accounting for just 10-20% of modifiable contributors to health. The remaining, majority determinants of health are increasingly referred to as "social determinants of health" (SDoH), the conditions in which people are born, live, learn, work, play, and age that affect health, functioning, and quality of life. SDoH reflect socio-economic, political, and economic structures as well as the physical environment, all of which have implications for health.²

Over the past century, the American approach to health and health care has evolved into a sharp bifur-

Blake N. Shultz, M.D., J.D., is an Emergency Medicine resident at the Harvard Affiliated Emergency Medicine Residency program and Associate Research Scholar at the Solomon Center for Health Law and Policy at Yale Law School. Carol R. Oladele, Ph. D., M.P.H., is an Assistant Professor and core faculty at the Equity Research and Innovation Center, and the Center for Neuroepidemiology and Clinical Neurological Research at Yale School of Medicine. She is also faculty at the Yale School of Public Health's Online Executive M.P.H. Program. Ira L. Leeds, M.D., M.B.A., is an Assistant Professor of Surgery at Yale School of Medicine and Clinical Member at the Cancer Prevention and Control Program at Yale Cancer Center. Abbe R. Gluck, J.D., is the Alfred M. Rankin Professor of Law and Faculty Director of the Solomon Center for Health Law and Policy at Yale Law School. She is also Professor of Internal Medicine (General Medicine) at Yale School of Medicine, and the Founding Faculty Director of the Yale Medical-Legal Partnership. Cary P. Gross, M.D., is a Professor of Medicine and Epidemiology at Yale School of Medicine and Director of the Cancer Outcomes, Public Policy, and Effectiveness Research (COPPER) Center.

cation between a reductionist, medical approach and the broader, public health perspective regarding strategies to improve quality of life, well-being, and health outcomes. This bifurcation between the biomedical model and the larger framework of SDoH has significant ramifications for health policy in America, where the majority of health expenditures have historically been on medical care, and per capita health spending is more than double the comparable country average.³ Recently, however, the federal government is using its funding power to accelerate investment in SDoH interventions as a key strategy for improving health.

Interventions designed to address social determi-

affected by SDoH due to the effects of structural racism and discrimination, which influence systems such as education, economics, and healthcare, and unfairly disadvantages groups through discriminatory laws, values, beliefs, and distribution of resources. The structural effects of racism significantly affect health status, and therefore comprise some of the most salient SDoH. Racism and the other social indicators of SDoH are mutually reinforcing systems of discrimination that contribute to health inequities and disproportionate disease burden among people of color. 12

In order to better align federal health policy with this modern understanding of drivers of health,

To explore this balance, this article examines how federal reform is shaping the current landscape of SDoH research, screening, and intervention in the clinical setting. We use recent examples from the different clinical contexts of cancer care and emergency medicine to illustrate how these reforms translate into clinical practice. We then suggest related policy improvements, including the need for a coherent structural framework for governmental funding and targeting of SDoH, standardization of screening and intervention in the clinical setting, and clarity regarding the obligations and medical-legal liability of clinicians engaging in SDoH interventions.

nants of health target multiple pathways of illness, given the complex nature in which SDoH operate to influence health. There are numerous, interacting social and environmental conditions associated with poor health, including housing instability and food insecurity.4 For example, housing instability is associated with negative health outcomes in children,5 and unhoused adults have between 5- and 10-times higher mortality rates than the general population.⁶ Food-insecure adults have higher rates of chronic disease and are less likely to have optimal control of their chronic conditions compared to individuals who are food-secure.⁷ In a national survey of patients with major chronic diseases, those who report housing and food insecurity are the most likely to also report poor access to healthcare.8 Other SDoH like poor air quality, particularly common in urban communities, are also associated with a variety of health issues, including asthma, lung cancer, and heart disease.9

SDoH interventions also present a substantial opportunity to advance health equity.¹⁰ Poor access to health care is itself an SDoH. Communities of color and low-income individuals, are disproportionately

Healthy People 2030, the U.S. Department of Health and Human Services' (HHS) decennial set of national health objectives, includes an "overarching" focus on SDoH, with a broad goal to "[c]reate social, physical, and economic environments that promote attaining the full potential for health and well-being for all."13 The investments driven by this focus have contributed to a fundamental shift in clinical medicine, both in terms of direct patient care and billing, and the involvement of interdisciplinary teams in the clinical setting.14 As social determinants of health become a central focus of health policy and clinical practice in the United States, clinicians and policy-makers alike must balance the desire to reduce health inequities and improve population health with the risk of overmedicalizing social issues, and increasing cost and fragmentation in an already over-burdened health care system.15

To explore this balance, this article examines how federal reform is shaping the current landscape of SDoH research, screening, and intervention in the clinical setting. We use recent examples from the different clinical contexts of cancer care and emergency medicine to illustrate how these reforms translate into clinical practice. We then suggest related policy improvements, including the need for a coherent structural framework for governmental funding and targeting of SDoH, standardization of screening and intervention in the clinical setting, and clarity regarding the obligations and medical-legal liability of clinicians engaging in SDoH interventions.

I. The Social Determinants of Health Policy Landscape

The federal government is driving a significant shift in health care towards a focus on SDoH-related interventions. As noted above, the goals of the decennial Healthy People Initiative have evolved from decreasing mortality and increasing independence among the elderly to eliminating health disparities and creating healthy social, physical, and economic environments.¹⁶ Today, nearly every federal agency is at least tangentially involved in social determinants of health, although the primary locus of priority-setting and funding is housed within HHS.17 The Centers for Medicaid and Medicare Services (CMS) within HHS is one agency directly influencing physician reimbursement and other funding related to SDoH screening.18 In 2016, for example, the Center for Medicare and Medicaid Innovation (CMMI) announced the Accountable Health Communities model, which provides funding to study systematic screening and intervention related to health-related social needs among Medicare and Medicaid beneficiaries.19

Federal funding affords states with potent incentives and the flexibility to target SDoH. States are increasingly utilizing Medicaid funds to coordinate the navigation and delivery of SDoH interventions via Section 1115 Demonstration Waivers.²⁰ As of November 2, 2022, 18 states had approved waivers with SDoHrelated provisions and 8 states had pending SDoH requests.²¹ North Carolina's Healthy Opportunities Pilot, for example, coordinates support for housing, transportation, and interpersonal violence interventions for at-risk managed care enrollees.²² Other states such as Texas used Medicaid Delivery System Reform Incentive Payment initiatives to encourage providers to creatively address SDoH needs, including by installing refrigerators for insulin in homeless shelters.²³ As federal and state SDoH funding increases, professional organizations and providers are navigating a complex landscape of incentives and requirements as they seek to take advantage of new programs. These programs braid federal and state Medicaid funding with state-only funding to local community-based organizations and philanthropic giving.

Other federal agencies traditionally focused on non-medical sectors have adopted a "health in all policies" approach, incorporating health considerations broadly into decision making.²⁴ The U.S. Department of Agriculture (USDA), for example, now funds food banks and programs that create a broad ecosystem of resources for patients who screen positive for social needs.²⁵ The Department of Education also recently announced more than \$188 million in funding to support mental health and student wellness, including through School-Based Mental Health services.²⁶ Recent legislation such as the American Rescue Plan Act of 2021 (ARPA) and the 2023 Omnibus Bill supports the health in all policies approach by creating broad funding opportunities for SDoH intervention, including in the clinical sphere.²⁷

Non-governmental professional and accreditation organizations play a key role in federal and state reform efforts. Accreditation organizations play an increasing role in ensuring standardization of health care delivery and quality in the United States and the vast majority of hospitals opt to become accredited, so changes in accreditation standards have significant reach.²⁸ Around 88% of accredited U.S. hospitals are accredited by The Joint Commission, a non-profit, non-governmental organization.29 At a high level, the National Academies of Science, Engineering, and Medicine recently published an influential report on "Integrating Social Care into the Delivery of Health Care," laying out five categories of activities guiding such integration.³⁰ The American Medical Association's Integrated Health Model Initiative is working to improve accuracy and standardization of collected SDoH data.31 Accreditation organizations also encourage standardization and adoption of SDoH interventions, such as the American College of Surgeons Commission on Cancer's accreditation requirement that institutions screen for distress, with a "distress thermometer" that includes concerns about family issues, transportation, and financial stressors, in addition to physical problems.³² These broad priorities are echoed and interpreted at the specialty level through guidance and resources from individual medical specialty organizations, such as the American College of Emergency Physicians' Social Emergency Medicine Section,33 and the American Society of Clinical Oncology's Patient-Centered Oncology Payment and Oncology Medical Home models, which encourage SDoH screening and intervention.³⁴ Healthcare providers targeting SDoH in the clinical setting therefore must also consider a variety of professional recommendations, particularly given the wide range in practice environments and capabilities.

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Finally, large health systems have begun to play a role in addressing SDOH. Urban hospitals serving large volumes of uninsured patients have been particularly creative in expanding non-clinical health services. Some, such as Boston Medical Center, fund food pantries co-located with clinical services.³⁵ Others, like Yale New Haven Hospital, sponsor medicallegal partnerships with interdisciplinary teams that screen patients for legal needs, litigate cases on behalf of patients and, as warranted, provide counsel, referrals, and other appropriate resources.³⁶ Medical-legal partnerships and SDoH resources are also frequently co-located in Federally Qualified Health Centers, which provide primary care to underserved communities.³⁷ Payment reform, such as the Medicaid waivers mentioned above and CMMI's Enhancing Oncology Model (EOM), which requires participating oncology practices to screen for health-related social needs, has encouraged hospitals to fund these programs, and allowed them to respond to the needs of their communities.38

II. SDoH in Clinical Practice: A Comparative Case Study of Oncology and Emergency Medicine

Two medical specialties, oncology and emergency medicine, offer instructive insight into how the above factors translate into clinical practice. The high cost of cancer care and serious related morbidity make patients with cancer a particularly vulnerable population. Individuals with cancer are nearly three times more likely to declare bankruptcy than the general population, and the resulting financial insecurity contributes to the association of a cancer diagnosis with a host of negative SDoH, including food insecurity and homelessness.³⁹ For example, an analysis of National Cancer Database data showed that patients with a late-stage lung cancer diagnosis were more likely to have lower income, reside in medically underserved areas, and less likely to have private insurance.⁴⁰ Further, negative SDoH are associated with poor outcomes in cancer care. 41 One large, national study found that each individual SDoH, such as low education, zip code poverty, and lack of health insurance, was associated with an incremental worsening in cancer mortality.⁴² Patients with three or more health-harming SDOH had a two-fold increase in mortality risk compared to those without harmful SDOH.43 Racism and limited access to health care are also SDoH in and of themselves. Black and Hispanic patients, who disproportionately experience negative SDoH, are more likely to be diagnosed with cancer at later stages, have cost-related non-adherence with treatment, and higher mortality.44

Much of cancer care in America is centered around high-volume, well-resourced cancer centers. Patients often have in-person appointments requiring repeated interaction with the same health care facility. Memorial Sloan Kettering takes advantage of this through its FOOD program, which embeds medically tailored food pantries in cancer center clinics.45 Further, cancer centers often have robust "patient navigation" models to overcome barriers of care, due to the complexity of care teams and treatment regimens. 46 Patient navigators assist patients in accessing health insurance and welfare benefits, as well as coordinating health care appointments and navigating employment concerns.⁴⁷ These programs and their requisite personnel are now required by the American College of Surgeons' Commission on Cancer for accreditation and serve as a built-in locus for coordinating SDoH interventions.48 More recently, explicitly equity-centered measures, including removing structural barriers and improving equitable access to high-quality cancer care, have been a prominent component of the latest drive to standardize and raise the quality of cancer care. The American Society of Clinical Oncology's Medical Home Standards, which have significant influence over cancer care in the United States, contain an over-arching emphasis on equity as well as specific recommendations regarding screening for SDoH-related needs.49

Finally, the unique needs of many patients with cancer make the clinical setting appropriate for specialized interventions. For example, academic medical centers, particularly those affiliated with major cancer centers, have over the past decade played a key role in expanding the Medical-Legal Partnership (MLP) movement. MLPs embed legal staff in the clinical setting to give patients access to legal counsel who screen and address patient' health-harming civil legal needs. 50 Yale New Haven Hospital, in cooperation with Yale Law School's Solomon Center for Health Law and Policy, has a Palliative Care MLP which addresses matters such as guardianship, housing and powers of attorney and an Oncology MLP which addresses an even wider range of legal issues including employment (workplace discrimination, wrongful termination, reasonable accommodations), housing (eviction defense, conditions), public benefits (SSDI/SSI and state benefit programs), immigration (such as medical visas for family members), and estate planning (wills, powers of attorney).51 Such collaborations between law schools and schools of public health are often drivers for a broader, interdisciplinary approach to health care, including targeting of SDoH, augmented by the unique nature of cancer care.

In contrast, emergency medicine is far removed from the coordinated, centralized care provided at cancer centers. There are over 130 million emergency department (ED) visits per year in the United States, many of which may be a patient's only interaction with the health care system.⁵² A large percentage of patients seen in the ED have presentations influenced by social determinants of health. One meta-analysis found reported rates of homelessness in ED patients of between 2.5% and 6%, and repeated instances of food insecurity above 20%.53 Studies involving Medicaid beneficiaries have found a strong correlation between social risk and ED utilization.⁵⁴ The degree of social need in emergency departments is so significant that an entire field has spawned within the specialty referred to as "social emergency medicine."55 One active area of research in social emergency medicine is related to SDoH screening and data collection.

Emergency medicine physicians now have additional incentive to screen for SDoH; as of this year, providers will be able to bill for more complex encounters in part based on positive screens for social risk.⁵⁶ Emergency medicine physicians will now bill for visits based solely on five Medical Decision Making (MDM) levels which are based on three categories: (1) the number and complexity of problems addressed; (2) the amount and complexity of data analyzed and reviewed; and (3) the risk of mortality and morbidity of patient management.⁵⁷ SDoH risk factors count as "moderate risk" under the risk table specifying the third MDM category, and 2023 is the first year for which identified SDoH risk factors have impacted the level of service provided.⁵⁸ Early efforts to capture SDoH information for billing purposes have been hampered by the variety of terms used to describe social needs and risk and the lack of a standardization in screening methods.⁵⁹ Unfortunately, current billing guidance allows only for reimbursement of the screening itself, and there are no CPT codes allowing for reimbursement of SDoH interventions such as referral programs or food pantries.60

Regardless, a number of large emergency departments have robust SDoH intervention programs. One example is Highland Hospital in Oakland, California. Highland Health Advocates utilizes a "Health Leads" model through which student volunteers connect ED patients who screen positive for social needs to community services. 61 The program also partners with East Bay Community Law Center to provide legal representation and advice to patients with health-harming legal needs. 62 Key components of ED-based SDoH intervention programs are standardized, rapid screening and robust referral networks, as evidenced

by the Highland model. Patient volume in emergency departments precludes time-intensive screens and necessitates the use of non-healthcare staff to conduct screening. Further, patients are typically in the department for a short period of time, increasing the emphasis on referrals to outside resources rather than co-located social/legal services. Unlike cancer centers, however, most emergency departments are not structured to provide long-term follow-up for patients, making it difficult to ensure that patients actually connect with resources they are referred to.

III. Next Steps

As detailed above, health care entities and providers are working creatively to translate federal SDoH funding and the opportunities it creates to the realities of clinical medicine. Although the shift in federal focus to SDoH has enormous potential to promote health and wellbeing, it is in the early stages of implementation and there are a number of opportunities for improvement.

First, the federal government should articulate a clear vision for "health" in America and how it should be funded and regulated. Centralizing SDoH efforts in HHS and agencies with a historically medical focus risks "over-medicalizing" social issues, as critics have noted.⁶³ Medical conceptions of health generally emphasize individual interventions and outcomes rather than population perspectives, conflating "health" with "health care." Further, the outcomes of SDoH risks and interventions are often difficult to measure, given the multifactorial root causes and the lack of an existing infrastructure for following patients and populations longitudinally. They are therefore less amenable to study via the randomized control trials favored in traditional medical research, such as that funded by NIH grants.65 However, centralization interagency coordination of SDoH in HHS may offer an opportunity to reverse centuries of disinvestment in social services.⁶⁶ Formal federal interagency coordination is common in healthcare: HHS and the Department of Justice regulate controlled substances, and HHS, the Department of Treasury, and the Department of Labor engage in joint rulemaking under the Affordable Care Act. Formal interagency coordination may also allow for a more cohesive vision of federal health regulation than a "health in all policies" approach, with each agency left to pursue its own priorities. Of course, federal coordination will only go so far; a truly integrated approach would also integrate state governments and the community-based organizations that deliver health care on the ground. But as a first step, health reform should at least encour-

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age cross-agency collaboration in recognition of the diverse expertise needed to comprehensively target SDoH, while acknowledging a larger perspective than a biomedical approach to health alone.

Second, federal funding should prioritize standardization of screening and data collection on SDoH, and define clear roles for actors throughout the health care system. The Center for Medicaid and CHIP Services and Medicaid Enterprise Systems currently support state IT development related to SDoH, and states such as California have utilized Section 1115 waivers to start to build capacity for closed-loop referrals related to SDoH interventions.⁶⁷ California has also had success in building community health worker programs to strengthen these connections between health care systems and the communities they serve.⁶⁸ However, health care entities continue to struggle with the lack of standardized terminology and screening practices. 69 Further, screening in a clinical setting may create an ethical obligation to act on screening results in a way that meaningfully improves health.70 As health systems and providers build capacity to address SDoHrelated harms, the federal government could consider liability shields covering SDoH interventions to clarify a prevailing "standard of care" and encourage providers to intervene in clinical settings.⁷¹ For example, is a referral enough?

Third, federal funding policy should start to explore how community organizations providing SDoH interventions might be reimbursed—and to what extent additional funding for those organizations is needed. Providers themselves are indeed able to indirectly bill for SDoH screening via encounter complexity, but utilization of CPT codes to indicate such screening is very low.⁷² In part, this may be due to the lack of standardized screening approaches discussed above. However, the inability to bill for time spent by providers on referrals and other interventions, and lack of CPT codes to indicate such practices, likely contributes to low Z code usage and meaningful SDoH intervention in the clinical setting.⁷³ Defining CPT codes for provider engagement with SDoH interventions may also serve as useful guidance for clinicians by indicating what practices are expected and encouraged by payors.

More problematically, there is a significant lack of funding for community organizations engaged in targeting SDoH, such as non-profit food pantries, housing shelters, and MLPs, although needs vary.⁷⁴ An assessment of the funding needed for these organizations to be effective partners in SDoH interventions is a priority. Such organizations must have meaningful participation in policy reform and grant program design. New York's Health Equity Regional Organi-

zations (HEROs) program, funded in part by a 1115 waiver, is a key example of this direct funding that should be broadly considered.⁷⁵ HEROs are regional, mission-based organizations intended to coordinate community based organizations, health care providers, managed care organizations, and other stakeholders to promote holistic population health initiatives tailored to local needs.⁷⁶ The HERO organization is paid by Medicaid for its coordinating efforts, but the community organizations it refers to largely remain funded by their own mechanisms. The HEROs will facilitate needed data collection to surface the most pressing health needs and also to determine whether community-based organizations can deliver the support necessary without additional resources. For example, HEROs will conduct reentry services for the recently incarcerated as well as inventory reviews of supportive housing organizations, and will identify gaps and suggest solutions for closing them. They all will coordinate social work and search assistance, and identify major needs like sufficient long-term care. In contrast to funding coordination models like HERO, more direct funding of community organizations — such as paying for the housing itself — would pose many challenges, possibly including the need to ensure additional accountability. More generally, it is important to ensure that the full burden of funding SDoH interventions does not sit on the shoulders of Medicaid unless Medicaid is given significantly more funding.

Finally, funding should encourage state experimentation through expanded waiver programs. As the examples from oncology and emergency medicine highlight, SDoH screening and interventions will vary widely by specialty and practice environment. Federal funding that encourages flexibility and experimentation, such as expanded Medicaid 1115 waivers and payment models like CMMI's EOM, will allow health systems to tailor SDoH programs to clinical capabilities and regional needs. This also allows states to use healthcare funds for traditionally non-medical purposes, including funding case management programs, food pantries, and housing shelters, as discussed above.

IV. Conclusion

The federal government is funding a sea change in health care by making SDoH a central focus of health reform.⁷⁷ Much of this funding and guidance is routed through HHS, although nearly all federal agencies now play an explicit role in health promotion. States play a key role in implementing federal funding and encouraging experimentation to address local needs.

Professional and accreditation organizations are guiding implementation at the specialty and health-care entity levels by translating federal priorities into actionable care models and requirements for members. And, at the ground level, health care entities and providers are utilizing this complex milieu of incentives, requirements, and guidance to care for patients in a more holistic manner, under a broadened conception of "health care."

To maximize the effectiveness of federal focus on SDoH, regulators must articulate a clear vision for "health care" and related funding in America. Reform should prioritize standardization of screening, data collection, and intervention, and clarify the anticipated roles of stakeholders throughout the health-care system. Finally, payment models should continue to encourage flexibility across specialties and geographic/temporal adaptability, and should begin to explore reimbursement policy not only for health care entities and providers, but also for community organizations and other interventions targeting SDoH.

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