HEALTH POLICY

Accelerating the Implementation of Social Determinants of Health Interventions in Internal Medicine

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Despite the numerous medical and public health advancements made in the last century, a social gradient of health continues to exist for Americans. Chetty and colleagues recently found that the gap in life expectancy between the richest 1% and poorest 1% of the population was 14.6 years for men and 10.1 years for women, and that this disparity has only widened since 2001.¹ These gaps cannot be entirely explained by access to and affordability of medical care.^{2–4} A key driving force is a group of factors known as social determinants of health (SDH), defined as the conditions under which people are born, grow, live, work, and age. These circumstances are shaped by the distribution of money, power, and resources at the global, national, and local levels.⁵ Some have estimated that up to 70% of non-modifiable variation in health outcomes is attributable to these social determinants of health.⁶

The U.S. health care system has begun to recognize the need to address patients' social and environmental circumstances in order to reduce health inequalities. One study demonstrated that incorporating routine screening for SDH at well-child visits increased maternal employment, childcare, and receipt of fuel assistance, while reducing homelessness.⁷ In 2014, the Institute of Medicine (IOM) released recommendations for including social and behavioral domains in the electronic medical record.⁸ However, these recommendations have not been systematically incorporated into routine medical care. The Centers for Medicare & Medicaid Services (CMS) recently made available their health-related social needs screener.⁹ The IOM's seminal report, *Crossing the Quality Chasm*, described the widespread inability in medicine to adopt and implement practice innovations with proven efficacy; prior research suggests that the adoption and incorporation of SDH screening and referral practices will take almost two

decades.¹⁰ Given widening socioeconomic health disparities, we believe it is imperative to accelerate the adoption of routine screening and referral interventions for SDH in health care delivery, especially for internal medicine practice, and we therefore provide the following recommendations.

INTERNAL MEDICINE SHOULD ENDORSE GUIDELINES ON ADDRESSING SDH

Formalization of professional guidelines serves to standardize care for patients. In 2016, for the first time, the American Academy of Pediatrics (AAP) recommended screening for poverty-related social risk factors at pediatric visits.¹¹ To date, pediatrics is the only field of medicine with guidelines for SDH screening. As demonstrated in other fields, codifying recommendations into formal guidelines can encourage uptake among physicians in practice.^{12,13} Early evidence from pediatrics suggests that routine SDH screening and referral has improved patient outcomes.^{7,14} The inclusion of SDH identification in medical professional guidelines would likely encourage more physicians in those specialties to be aware of the impact of social determinants on health and to identify SDH screening as part of foundational preventive medicine.

DEVELOP POLICIES TO ENABLE INNOVATIVE AND ADAPTABLE MODELS FOR ADDRESSING SDH

As ongoing research supports the inclusion of upstream factors in medicine in order to reduce health disparities, policymakers should facilitate the development of adaptable care models for addressing SDH.¹⁵ Instead of prescriptive models to implement existing hub or care coordination approaches, supporting flexibility for practices and health care systems to develop individualized SDH screening and referral practices, while coordinating with local communities themselves, will likely increase program success.¹⁶ It is unlikely that a single screening tool, referral system, or coordination model will meet the needs of all providers and communities in the U.S. While some providers and clinics may have robust infrastructure to enable rapid implementation of SDH screening and referrals to community services, others may have limited support. Programs and policies at the state and national levels should encourage the development of flexible screening

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instruments and referral mechanisms. Incorporating community-level needs assessment of most common SDH and allowing already overburdened practices and health care systems to develop care models that are tailored to their unique populations and needs will lead to greater uptake.

ADDRESSING PATIENTS' SDH CAN REDUCE PHYSICIAN BURNOUT

Physician burnout is particularly high for primary care physicians.¹⁷ A recent qualitative study demonstrated that the insurmountable social needs faced by many primary care patients were contributing to the decline in medicine residents choosing a career in primary care.¹⁸ By effectively screening and addressing patients' SDH, physicians throughout the pipeline may have an increased sense of self-efficacy, resulting in greater job satisfaction. Rather than contributing to provider burnout, addressing SDH—by securing food or housing for a patient—may actually be part of the solution for primary care physicians, particularly those working in underserved areas.^{19,20} Future research should examine the potential effects of addressing patients' SDH on reducing physician burnout, as this may be an unintended benefit of including robust SDH screening and referral interventions in internal medicine practice.

INCREASE THE ABILITY TO ADDRESS SDH BY PROMOTING CLINICAL–COMMUNITY COLLABORATIONS

A frequently cited hurdle to incorporating SDH into routine medical care involves the lack of available services to meet identified SDH needs.^{21,22} A systematic review evaluating successes among social interventions showed that the majority of studies evaluating social support services, particularly those with interventions on housing, food, and care coordination, have demonstrated positive results.²³ Innovative care models for promoting clinical–community collaboration are currently under way. CMS has supported the participation of 32 organizations in the Accountable Health Communities study aimed at understanding how incorporating SDH into clinical care while partnering with community organizations can lower costs, improve health outcomes, and reduce health care utilization.^{24,25} Through the CMS Innovation Center initiatives, states such as Massachusetts have been granted waivers to encourage the use of Medicaid dollars to partner with community-based organizations for improved patient care and health outcomes.²⁶ Fostering collaboration between internal medicine practices and social service agencies through government-led initiatives, as in the case of Accountable Health Communities or the Massachusetts Medicaid waiver, or through smaller grassroots collaborations can increase the effectiveness of SDH screening and referral interventions by ensuring that acceptable solutions are available for patients who identify unmet needs.

REIMBURSEMENT MODELS: PAYING FOR ADDRESSING PATIENTS' SDH

Despite the profound impact on health, our current health care payment system does not incentivize or reimburse efforts by health care providers to address SDH.²⁷ In fact, the current reimbursement model provides a disincentive to caring for the most vulnerable patients. Without the inclusion of compensation measures for providers and clinical support staff to address SDH, the financial burden of incorporating SDH into the health care delivery system severely limits what providers can accomplish. As the U.S. health care system moves towards a model of value-based care, the inclusion of SDH must be a component of new and innovative payment schemes, especially as many internal medicine practices in urban and rural areas serve a disproportionate share of socially complex patients.²⁸ These payment models could include codes for screening activities, or could include severity adjustments in payments for patients with specific social needs, similar to increased payment for medical case severity or complexity.²⁹ As evidence in support of addressing SDH in the clinical setting continues to grow, appropriate financial and regulatory incentives are critical to ensuring adoption of these practices.³⁰

CONCLUSION

As income disparities widen, health at the individual and population levels continue to diverge across the socioeconomic spectrum. Addressing SDH within the delivery of medical care has the potential to reduce long-standing health disparities while also aligning with the quadruple aim in health care: enhancing the patient experience, improving population health, reducing costs, and improving the work life of health care providers. To accelerate the inclusion of SDH in routine internal medicine practice, we suggest five actionable steps: (1) adoption of professional guidelines from expert panels and professional societies, (2) policies supporting the development of new and adaptable SDH care models, (3) additional research on the effect of implementing SDH screening and referral interventions on physician burnout and the primary care pipeline, (4) promotion of clinical–community collaborations, and (5) providing appropriate reimbursement. Addressing SDH as a core component of internal medicine practice is critical for achieving health equity in the U.S.

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Compliance with Ethical Standards:

Conflict of Interest: The authors declare that they have no conflict of interest.

REFERENCES

1. Chetty R, Stepner M, Abraham S, Lin S, Scuderi B, Turner N, Bergeron A, Cutler D. The association between income and life expectancy in the United States, 2001-2014. *JAMA*. 2016;315(16):1750-66.
2. Braveman PA, Cubbin C, Egerter S, Williams DR, Pamuk E. Socioeconomic disparities in health in the United States: what the patterns tell us. *Am J Public Health*. 2010;100(S1):S186-96.
3. Closing the gap in a generation: health equity through action on the social determinants of health: Commission on Social Determinants of Health final report. World Health Organization; 2008.
4. Mackenbach JP, Stronks K, Kunst AE. The contribution of medical care to inequalities in health: differences between socio-economic groups in decline of mortality from conditions amenable to medical intervention. *Soc Sci Med*. 1989;29(3):369-76.
5. World Health Organization: Social Determinants of Health. 2017; http://www.who.int/social_determinants/en/, February 27, 2017.
6. Schroeder SA. We can do better—improving the health of the American people. *N Engl J Med*. 2007;357(12):1221-8.
7. Garg A, Toy S, Tripodis Y, Silverstein M, Freeman E. Addressing Social Determinants of Health at Well Child Care Visits: A Cluster RCT. *Pediatrics*. 2015;135(2):e296-304.
8. Institute of Medicine (US). Committee on the Recommended Social and Behavioral Domains and Measures for Electronic Health Records. Capturing Social and Behavioral Domains and Measures in Electronic Health Records: Phase 2. National Academies Press, 2014.
9. Billieux A, Verlander K, Anthony S, Alley D. Standardized Screening for Health-related Social Needs in Clinical Settings: The Accountable Health Communities Screening Tool (Discussion Paper). Washington, DC: National Academy of Medicine; 2017.
10. Brownson RC, Kreuter MW, Arrington BA, True WR. Translating Scientific Discoveries Into Public Health Action: How Can Schools Of Public Health Move Us Forward? *Public Health Rep*. 2006;121(1):97-103.
11. Gitterman, Benjamin A., et al. Poverty and child health in the United States. *Pediatrics*. 2016:peds-2016.
12. Barkas, F and Elisaf M. National hyperlipidemia management policies improve lipid target attainment in clinical practice. *Curr Med Res Opin*. 2017;8:1-3. <https://doi.org/10.1080/03007995.2017.1391082>.
13. Kessel L, Erngaard D, Flesner P, Andresen J, Hjortdal J. Do evidence-based guidelines change clinical practice patterns? *Acta Ophthalmol*. 2017;95(4):337-43.
14. Gottlieb LM, Hessler D, Long D, et al. Effects of social needs screening and in-person service navigation on child health: a randomized clinical trial. *JAMA Pediatr*. 2016;170(11):e162521. <https://doi.org/10.1001/jamapediatrics.2016.2521>.
15. McGinnis JM, Williams-Russo P, Knickman JR. The case for more active policy attention to health promotion. *Health Aff (Project Hope)*. 2002;21(2):78-93.
16. Tipirneni R, Vickery KD, Ehlinger EP. Accountable Communities for Health: Moving From Providing Accountable Care to Creating Health. *Ann Fam Med*. 2015;13(4):367-9.
17. Shanafelt TD, Boone S, Tan L, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Arch Intern Med*. 2012;172(18):1377-85.
18. Long T, Chaiyachati K, Bosu O, et al. Why Aren't More Primary Care Residents Going into Primary Care? A Qualitative Study. *J Gen Intern Med*. 2016;31(12):1452-9.
19. Kaufman A. Theory vs Practice: Should Primary Care Practice Take on Social Determinants of Health Now? Yes. *Ann Fam Med*. 2016;14(2):100-1.
20. DeVoe JE, Bazemore AW, Cottrell EK, et al. Perspectives in Primary Care: A Conceptual Framework and Path for Integrating Social Determinants of Health Into Primary Care Practice. *Ann Fam Med*. 2016;14(2):104-8.
21. Garg A, Boynton-Jarrett R, Dworkin PH. Avoiding the Unintended Consequences of Screening for Social Determinants of Health. *JAMA*. 2016;316(8):813-4.
22. Fierman AH, Beck AF, Chung EK, et al. Redesigning Health Care Practices to Address Childhood Poverty. *Acad Pediatr*. 2016;16(3):S136-46.
23. Taylor LA, Tan AX, Coyle CE, et al. Leveraging the Social Determinants of Health: What Works? *PLoS One*. 2016;11(8):e0160217.
24. Alley DE, Asomugha CN, Conway PH, Sanghavi DM. Accountable Health Communities—Addressing Social Needs through Medicare and Medicaid. *N Engl J Med*. 2016;374(1):8-11.
25. CMS' Accountable Health Communities Model selects 32 participants to serve as local 'hubs' linking clinical and community services [press release]. April 6, 2017.
26. Gershon R, Grenier M, Seifert RW. The MassHealth Waiver 2016-2022: Delivering Reform. 2017. Commonwealth Medicine Publications.
27. Joynt KE, De Lew N, Sheingold SH, Conway PH, Goodrich K, Epstein AM. Should Medicare Value-Based Purchasing Take Social Risk into Account? *N Engl J Med*. 2017;376(6):510-3.
28. Chen LM, Epstein AM, Orav EJ, Filice CE, Samson LW, Joynt Maddox KE. Association of Practice-Level Social and Medical Risk With Performance in the Medicare Physician Value-Based Payment Modifier Program. *JAMA*. 2017;318(5):453-61.
29. Ash AS, Mick EO, Ellis RP, Kiefe CI, Allison JJ, Clark MA. Social determinants of health in managed care payment formulas. *JAMA Intern Med*. 2017;177(10):1424-30.
30. Song Z, Rose S, Chernew ME, Safran DG. Lower- Versus Higher-Income Populations In The Alternative Quality Contract: Improved Quality And Similar Spending. *Health Aff (Project Hope)*. 2017;36(1):74-82.