COMMENTARY

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Health Services Research and Social Determinants of Health in the Nation's Largest Integrated Health Care System: Steps and Leaps in the Veterans Health Administration

John R. Blosnich, PhD, MPH† ; Melissa E. Dichter, PhD‡§ ; Deborah Gurewich, PhD‖ ; Ann Elizabeth Montgomery, PhD¶** ; Nancy R. Kressin, PhD‖†† ; Richard Lee, MPH‡‡ ; Christina M. Hester, PhD§§ ; Leslie R.M. Hausmann, PhD*†‖‖*

Social factors, such as poverty, discrimination, physical environments, and violence, sometimes referred to as "social determinants of health," have stronger relations with individuals' health and wellness than does health care.[1] Recognizing that knowledge of patients' social factors are "useful for diagnosis, treatment choices, policy, health care system design, and innovations to improve health outcomes and reduce health care costs," the Institute of Medicine (IOM) issued landmark recommendations for collecting and documenting domains of social and behavioral factors in patient electronic health records (EHR) in 2014.[1] The implementation of these recommendations has been slow to evolve due to several reasons, including how best to collect social factors data and the responsibility of health care systems to address social factors once they are detected.

In this commentary, we outline the recommendations of an interprofessional workgroup meeting supported by the Department of Veterans Affairs (VA) Health Services Research and Development Service (HSR&D) to identify the challenges and opportunities for addressing social factors in the Veterans Health Administration (VHA), the nation's single largest integrated health care system. With over 6.3 million health care utilizers, the VHA has been at the forefront of screening for several social factors. Perhaps one of its earliest universal clinical screens was to assess the experience of sexual harassment or assault during military service (military sexual trauma [MST]),[2] followed by universal screening for housing instability[3] and, more recently, screening focused on intimate partner violence[4] and food insecurity.[5] The VHA also operates several programs to address social factors such as justice involvement,[6] unemployment,[7] surviving violence,[8] as well as clinic-based and community-based services for housing instability for select VHA patient populations.[9] The VHA's current "whole health" initiative strives to reconceptualize health care from predominantly focusing on diseases and disorders to comprehensively integrating social factors and person-driven goals for wellness.[10]

In part bolstered by its breadth of patients, geographic reach, and unique status as a federally subsidized national system, the VHA has taken large steps to incorporate social factors into health care. Despite its progress, however, challenges endure (eg, linking Veterans to community resources to address unmet needs, data sharing between VA and community partners) and new ones emerge, inspiring an interprofessional workgroup meeting to look back, look around, and look forward at how the VHA can seize opportunities to better meet the social factors of Veterans through research and practice. The 26-member workgroup included VHA and non-VHA health services researchers, Veterans who utilize VHA

*VA Pittsburgh Healthcare System, Center for Health Equity Research and Promotion (CHERP), 151 University Drive C, Building 30, Pittsburgh, PA 15240

†Suzanne Dworak-Peck School of Social Work, University of Southern California, Montgomery Ross Fisher Building, 669 W 34th St, Los Angeles, CA 90089-0411

‡Corporal Michael J. Crescenz VA Medical Center, CHERP, 21 S University Ave, Philadelphia, PA 19104

§School of Social Work, Temple University, 1301 Cecil B. Moore Ave., Philadelphia, PA 19122

‖VA Boston Healthcare System, Center for Healthcare Organization and Implementation Research (CHOIR), 150 South Huntington Avenue (152M), Jamaica Plain Campus, Building 9, Boston, MA 02130

¶Birmingham VA Medical Center, 700 19th St S, Birmingham, AL 35233

**School of Public Health, University of Alabama at Birmingham, 1665 University Blvd, Birmingham, AL 35233

††Department of Medicine, Boston University School of Medicine, 72 E Concord St, Boston, MA 02118

‡‡Veterans Rural Health Resource Center, 163 Veterans Dr, White River Junction, VT 05009

§§American Academy of Family Physicians, 11400 Tomahawk Creek Pkwy, Leawood, KS 66211

‖‖Division of General Internal Medicine, University of Pittsburgh School of Medicine, 1218 Scaife Hall, 3550 Terrace Street, Pittsburgh, PA 1526

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services, and leaders from several U.S. Department of VA and VHA offices and centers. The workgroup convened for a 1-day interactive meeting using primary participatory formats including individual brainstorming followed by sharing with the larger group, small-group discussions, and whole-group synthesis of small-group discussion points. The meeting yielded three major themes about the actions the VHA can take to better address social factors. The themes concerned collecting and utilizing data on social factors, understanding the complexity of co-occurring social factors, and building models and evidence base for interventions to address social factors in the VHA.

One aspect of data collection focused on the need to prioritize social factors. Given the broad range of social factors to be assessed and addressed, participants voiced uncertainty regarding which social factors the VHA should identify and intervene upon. The participants indicated the need for more empirical data to understand the scope, scale, and impact of Veterans' social factors; they also emphasized the role of institutional priorities in driving decisions about which social factors to prioritize and how to gather data on those factors. One example of using research to advance policy directed at a social factor occurred in the 1990s when MST was determined as a major factor involved in post-traumatic stress among women Veterans.[11] The results of these efforts supported VHA's 2005 national directive to implement universal screening for MST for both female and male Veterans.

Furthermore, the VHA routinely implements infrastructural elements of provider-administered screening (eg, programmed reminders in EHR, clinical training and education), but the participants raised concerns around implementing additional data collection demands, including "reminder fatigue" and workload balance among primary care providers. Additionally, concerns arose around variation in quality and consistency of data collection, especially because these screens and clinical reminders to assess social factors are intended for health care operations purposes. As with the use of International Classification of Disease (ICD) codes, researchers can use screening data to learn about social factors, but the original mechanisms of collecting the data were not designed for research purposes (eg, rigorous evaluation of validity of items). Consequently, discussion coalesced around exploring the use of both active and passive data collection methods, such as developing and testing patient self-reported modalities that linked directly with the EHR, incorporating natural language processing to discover social factors in existing textual EHR data, and leveraging "big data" and linkages of data to inform clinical care and examine social factors.

A second theme emerged around researchers and providers recognizing and attending to the co-occurring nature of social factors. In terms of recognizing co-occurring social factors, researchers have capitalized on the clinical screening data recorded in the VHA EHR to document coinciding prevalence (eg, Veterans who have experienced intimate partner violence, military sexual trauma, and housing instability[12]). However, research is in its infancy about how multiple social factors shape health care utilization, treatment planning, or health outcomes. We also know very little about how health care systems can address co-occurring social factors. For example, there are several VHA programs that address different types of social factors (eg, VHA Homeless Programs,[9] Veterans Justice Programs,[6] job rehabilitation services[7]), but it is unclear if and how providers work across these services to address situations in which a Veteran has multiple, co-occurring social factors.

Finally, coalescing the need for sound data collection and the interrelated nature of many social factors, the interprofessional workgroup discussed how the VHA could develop and test models of care that address social factors. A consensus formed that if the VHA collects data on additional social factors, then the VHA needs to have plans to expedite care and referral to address those particular social factors. Although the IOM's report included recommendations for social and behavioral determinants to be included in the EHR, there is less guidance about what should happen after a health care system learns about a patient's unmet social needs. VHA's inception of MST and housing instability screens and services were massive enterprises that included both in-house expansion (eg, creation of MST coordinators) and strengthened links with community-based agencies.

DeVoe and colleagues developed a framework for workflows to incorporate social factors in a primary care setting, from data collection to referrals and community and clinical care coordination.[13] However, key questions remain about the implementation of screening and referral programs for unmet needs related to social factors. One of the main reckonings for health services research involves the challenges of data sharing and lack of harmonization across health care and community settings to enable impact, evaluation, and implementation studies.

From these emergent themes, participants offered strategies to enhance VHA's current efforts in social determinants of health and look ahead to expand and innovate to incorporate social factors of patients served by the VHA. When the VHA implements new screens and services related to social factors, evaluation plans should be designed before the implementation. Engaging health services researchers early in the process is crucial for defining and refining evaluation design, data elements, and outcomes. The VHA has developed several innovative programs aimed at these upstream planning efforts. One such initiative is the Researchers in Residence Program, in which health services researchers spend an allotted time with VHA clinical offices for on-the-ground experiential learning about the policy and process levels of the health care system. Another program is the Quality Enhancement Research Initiative (QUERI), VHA's engine for translating evidence into health care practice and implementation. Leveraging these VHA resources could support research to identify new and effective strategies to address social factors in the VHA (eg, a health services research working in both Veterans

Justice Programs and Office of Mental Health and Suicide Prevention).

Another aspect of research that the VHA continues to prioritize is Veteran engagement, somewhat similar to efforts utilized by the Patient-Centered Outcomes Research Institute (PCORI). Empirical research about patient perspectives on screening and its impacts on their care varies by the type of social factor. Recently, a qualitative study conducted in the VHA included interviews with patients who screened positive for housing instability to explore how they conceptualize housing stability and related threats, finding that the language used in clinical screening tools must be validated from the patient's perspective to ensure that it correctly elicits the desired information.[14] In the challenging area of intimate partner violence, VHA health services researchers have conducted considerable formative research to understand patient and provider perspectives about screening and interventions.[4] In contrast, formative research engaging patients regarding the numerous other social factors suggested by the IOM (eg, financial resources, social support, food insecurity) is considerably limited at present.

Lastly, partnerships with community agencies are major components to addressing patients' social factors. Although the VHA has many in-system services, not all Veterans served by the VHA are eligible for these services because they apply to specific circumstances (eg, VA's legal programs mostly focus on criminal justice and not other forms of legal problems). There are several initiatives that extend beyond the clinic walls and have major roles in patients' health outcomes. For instance, the U.S. Department of Housing and Urban Development-VA Supportive Housing (HUD-VASH) program is a long-standing program that relies partly on community-based landlords who accept housing vouchers for Veterans.[9] A more recent example from Tsai and colleagues described an effort to build medical-legal partnerships between VHA facilities and community agencies to link legal assistance to patients, which benefited patients' mental health outcomes.[15] Whether and how these types of partnerships grow under the 2018 VA Maintaining Internal Systems and Strengthening Integrated Outside Networks (MISSION) Act, which focuses on community care program implementation, remains to be seen. To address Veterans' social factors, the VHA will need to overcome the current challenges to engaging community partners, including limited community-based agencies in rural or underresourced areas and identifying incentives that most effectively foster community partnership.

The realities of dynamic and co-occurring social factors can present especially taxing challenges, which cannot be cured through traditional medical treatments; there is no prescription to treat housing instability, legal problems, financial strain, lack of social support, intimate partner violence, or any other social factor. As a learning health care system, the VHA was amenable to social factors before the IOM recommendations for inclusion of social and behavioral determinants in EHR systems. At the time of this commentary, HSR&D leadership is considering ways to act on the workgroup's recommendations, including low-cost efforts (eg, designating sessions at VA national scientific meetings for topics around social factors) and intensive investment efforts (eg, creating requests for proposals to investigate social factors in health care delivery and outcomes).The breadth of data and the innovative environment bode well for the VHA to be a major national laboratory, liaison, and leader in navigating the challenges around the integration of social factors into health care practice and health services research.

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