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Addressing Social Needs in Clinical Settings: Implementation and Impact on Health Care Utilization, Costs, and Integration of Care

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Keywords

social determinants of health, integration of care, health interventions, Medicaid, Medicare, costs

Abstract

In recent years, health care policy makers have focused increasingly on addressing social drivers of health as a strategy for improving health and health equity. Impacts of social, economic, and environmental conditions on health are well established. However, less is known about the implementation and impact of approaches used by health care providers and payers to address social drivers of health in clinical settings. This article reviews current efforts by US health care organizations and public payers such as Medicaid and Medicare to address social drivers of health at the individual and community levels. We summarize the limited available evidence regarding intervention impacts on health care utilization, costs, and integration of care and identify key lessons learned from current implementation efforts.

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INTRODUCTION

The United States spends more per capita on health care than do other high-income countries, yet it has consistently worse health outcomes, with higher rates of people with multiple chronic conditions and higher death rates for treatable conditions (69). Care is more fragmented (47), and income-based disparities in health are higher (124).

Over the last decade, growing awareness of how social and economic forces impact health (21, 45) has led health care policy makers and payers to focus on addressing social drivers of health (SDH) as a strategy for improving health and health equity while controlling or reducing costs (50). Many patients, particularly those who are older, disabled, or high utilizers of acute care, have unmet social needs (19, 86, 96, 103, 113, 121, 140). Extant evidence suggests that addressing social needs, e.g., for housing, food, and employment, can improve health and well-being over the life course (11, 15, 54, 68, 76, 95, 97, 116, 135, 143). However, less is known about implementation and the impact of clinical setting efforts to address social needs.

In this review, we summarize evidence regarding approaches currently used by US health care organizations and payers such as Medicaid and Medicare to address SDH, identifying which social needs are being addressed, for whom, and to what effect. We also synthesize key challenges and lessons learned in implementing programs focused on integrating social services provision and referral in clinical settings and highlight implications for future research, policy, and practice.

APPROACHES FOR ADDRESSING SOCIAL NEEDS IN CLINICAL SETTINGS

Health care providers can act on SDH at the individual or community level. At the individual level, approaches entail screening patients for health-related social needs (HRSNs), providing referrals or direct access to relevant resources, and following up to determine whether needs have been addressed (59, 70, 77). At the community level, actions typically focus on more upstream systems change, e.g., by supporting local economic development or participating in multiorganization systems alignment and advocacy efforts (4, 75, 77).

In the United States, current approaches focus primarily on the individual level rather than on the community level (75, 90). Screening is particularly widespread, with almost all hospitals and most physician practices and federally qualified health centers reporting some social risk screening (38, 56, 58). Commonly assessed social needs include housing stability, food security, transportation access, utilities assistance, financial strain, interpersonal violence, and social support. However, screening practices are not consistent, with regard to either needs and populations assessed or types and quality of screening approaches used (49, 56, 90). Given the sensitive nature of many social needs, patient advocates and other stakeholders have also expressed concern about the potential harms of social risk screening to patients and the patient–provider relationship if not implemented in a trauma-informed, patient-centered manner (1, 25, 60, 85).

Following screening, many health care organizations attempt to refer patients for assistance with HRSNs. Unfortunately, gaps between social risks screening, referral, and actual needs fulfillment are widespread (89, 129). One longitudinal study of the 2–1–1 referral helpline found that only 36% of individuals receiving a referral received assistance from the referral agency (20). Another study of social screening outcomes in safety-net primary care clinics found that only 25% of participants with positive screens were referred to services (129). Provision of direct services is also quite limited, with 31% of hospitals offering nonemergency medical transportation, 19% of hospitals offering violence prevention services, and 7% offering meal delivery programs (6).

Many health care organizations struggle to develop the infrastructure, workforce training, and community-based partnerships needed to implement new referral pathways, provide coordinated

care, or deliver HRSN services at scale (10, 12, 16, 29, 125). Other challenges include limited availability of services to refer patients to, particularly for housing (36, 51, 137), and low patient uptake of HRSN referrals and services (23, 52). Research on factors affecting patient uptake identified barriers, including low perceived utility, acceptability, accessibility, or effectiveness of HRSN referrals and services; stigma; and fear of potential negative consequences of accepting services (34, 36, 52, 131). Key facilitators include holistic, patient-centered outreach and engagement approaches and trusting patient–provider relationships (36, 52, 131).

While important, screening, referral, and other individual-level HRSN interventions have been described as insufficient for improving health in the absence of corresponding change in the underlying systems of care in which services are embedded (27, 30, 51, 76). Unfortunately, health care organization activity on this front remains limited. Review of community health needs assessments (CHNAs) and community benefit activities of nonprofit hospitals and health systems, which are federally required in order for these entities to maintain their tax-exempt status, suggests that most CHNAs do not include social factors, and efforts to address SDH represent only a fraction of overall community benefit activities (28, 77, 119). One study found that between 2017 and 2019, only 5% of US hospitals' annual community benefit spending was directed toward community-based activities, of which an even smaller component focused on addressing SDH (75).

Case study data suggest that some hospitals and health systems are engaged in efforts to address SDH at the community level, e.g., supporting the construction of affordable housing, eviction prevention programs, or food pharmacies to promote access to healthy foods (75, 77, 142). When present, these efforts typically occur in partnership with other public and private organizations (75), reinforcing the importance of multisector coalitions and cross-sector collaboration for meaningful change at the community level (50, 90, 139).

Addressing SDH at either the individual level or community level requires significant investment in infrastructure and partnership development (63, 108). Unfortunately, health care organizations serving populations with the highest prevalence of unmet social needs are often least likely to have the slack resources needed to make these investments. Dedicated funding to support HRSN service provision, provider capacity development, and broader systems change efforts will be essential for long-term scale-up and sustainability of efforts to address SDH in clinical settings (12, 64, 108).

FUNDING FOR ADDRESSING SOCIAL NEEDS IN CLINICAL SETTINGS

In the United States, policy makers and practitioners interested in exploring more sustainable funding for addressing SDH have increasingly looked to Medicaid and Medicare, the nation's two major public health insurance programs, as potential payers. Both Medicaid and Medicare serve populations with a high prevalence of unmet social needs (90, 96) and in recent years have supported payment delivery system reforms focused on financially incentivizing providers for the value rather than the volume of services provided. Below, we describe each program and efforts within each to address beneficiaries' social needs, overall and in clinical settings.

Medicaid

Medicaid is a publicly funded health insurance program for low-income, low-asset individuals (42); nationally, the program covers 1 in 4 Americans. Medicaid is administered by states but jointly funded through an uncapped federal–state matching program. As an entitlement program, all individuals who meet eligibility requirements are permitted to enroll. Specific eligibility requirements vary by population group and state; however, major groups include low-income children and pregnant women, older adults aged 65+, people with disabilities, and adults.

Table 1 Services addressing health-related social needs (HRSNs) in Medicaid[a]

Services to address HRSNs	Description
Case management	Client-centered assessment, planning, coordination, and monitoring of services needed to address identified needs
Housing-related supports	
Environmental accessibility modifications	Adaptations to an individual's home necessary to ensure health, welfare, or safety (e.g., installing wheelchair ramps)
Housing assistance	Assistance in locating and securing stable housing (pretenancy support) or maintaining housing (tenancy sustaining)
Community transition services	Services that help individuals transition from institutional to community settings. May include one-time expenses associated with transition, e.g., security deposits, essential furnishings
Other supports	Utilities assistance, pest removal, asthma remediation
Nutrition assistance	Assistance with enrolling in nutrition assistance programs or direct provision of food support services such as home-delivered meals
Transportation	Nonemergency medical transportation or nonmedical transportation to support habilitation and community integration
Employment assistance	Prevocational training, supported employment, and other services to assist with obtaining and maintaining competitive employment
Personal care assistance	Services to assist with activities of daily living (e.g., walking, dressing, bathing) or instrumental activities of daily living (e.g., meal preparation, chores)
Community integration	Services and supports needed to help an individual function independently in a community-based setting (e.g., daily living skills, social skills training)
Home visiting program	Evidence-based support and education for at-risk caregivers and children provided in home by trained professionals or paraprofessionals (e.g., Nurse-Family Partnership)

[a]Services may be available only for narrowly defined population groups and may be capped or limited to specific geographic areas.

Federal rules historically prohibit the use of federal matching funds to cover nonmedical services through Medicaid. However, states can and have long used flexibilities within the program to address beneficiaries' health-related social needs (73). **Table 1** identifies and briefly describes HRSN services covered by Medicaid; **Supplemental Table 1** summarizes key mechanisms within Medicaid for covering these services. For example, all states use Medicaid state plan options or home- and community-based services (HCBS) waivers to provide at least some long-term services and supports (LTSS) to beneficiaries eligible for institutional placement, e.g., in a nursing home. LTSS encompass medical and social services that assist individuals who have functional limitations (32); example social services provided as part of LTSS include personal care assistance and environmental accessibility adaptations. While Medicaid is the primary payer of formal LTSS in the United States, specific eligible populations and services vary by state, and services may be capped or available only in limited geographic areas.

Supplemental Material >

Many state Medicaid programs also already cover case management and select integrated care models that bundle the provision of medical and social services. For example, the optional Health Homes Program benefit allows states to provide comprehensive case management, care coordination, and referrals to community and social support services for eligible beneficiaries; between 2015 and 2023, 26 states implemented Health Homes Programs, though few have sustained the program continuously over time and whether services are provided in behavioral health or clinical care settings varies by state (37, 130).

However, until recently, efforts to address HRSNs within Medicaid have been restricted largely to case management, care coordination, or select services available primarily via HCBS waivers. Coverage has also typically been restricted to a narrow set of populations as alternatives to

institutional placement, e.g., older adults and persons with physical disabilities, children or youth with intellectual or developmental disabilities or serious emotional disturbance, and adults with serious and persistent mental illness or traumatic brain injury. Except for those provided by the Health Homes Program, services have also been available largely in behavioral health or LTSS rather than in clinical settings.

In recent years, an increasing number of states have adopted new state plan benefits or applied for Section 1115 waivers to cover services addressing HRSNs for a wider range of medically and socially complex populations, including individuals who are homeless or at risk of homelessness, those with multiple chronic conditions, or those who were recently incarcerated (132, 140, 144). In 2023, 25 states and the District of Columbia had approved Section 1115 waivers that included efforts to address HRSNs for populations not previously eligible for such support (71).

Several states have also used state plan amendments to provide housing supports for these populations. For example, in 2021, Connecticut added a new benefit, "Connecticut Housing Engagement and Support Services" (CHESS), for beneficiaries experiencing homelessness and with multiple chronic needs; under CHESS, eligible beneficiaries receive intensive case management and pretenancy and tenancy-sustaining services, coordinated with non-Medicaid housing subsidies. An important consideration in the use of Medicaid funds to address housing instability is that Medicaid cannot pay for rent or room and board but rather only for indirect supports such as pretenancy, tenancy-sustaining, and housing transition services; state-level participation in housing-related collaborative activities is also permitted, e.g., to create and identify new housing resources (98).

State plan benefits and Section 1115 waivers that focus on the provision of HRSNs in clinical settings are not common and, when present, typically occur in conjunction with broader payment and delivery system reforms. In 2023, only 8 states had Section 1115 waivers that explicitly included efforts to integrate HRSN service provision or referrals in clinical settings; select waiver components in these 8 states are summarized in **Table 2**. Although structural arrangements for delivering care are quite different in these 8 states, all include both medical and social risk criteria such as homelessness in determining beneficiaries' eligibility for services. Notably, in 7 of 8 states, waivers also include dedicated funds for provider capacity development; such investments have been described as critical for developing cross-sector partnerships, data sharing, and delivery system infrastructure needed to meaningfully integrate historically siloed systems of care (36, 83). Impacts of these waivers are currently unknown, though several build on prior state delivery system reform efforts with proven impact on health outcomes and costs (104, 114, 115).

Medicaid Managed Care

Given that nationally almost three quarters of Medicaid beneficiaries are enrolled in managed care (72), state policy makers have also focused on incentivizing managed care plans to address HRSNs. In 2021, 33 states included provisions related to identifying or addressing HRSNs in their contracts with managed care plans (61, 127). Common provisions include requirements to screen and refer enrollees for HRSN assistance or partner with social service providers; for example, New Mexico requires plans to employ a full-time housing specialist to assess members' housing needs and connect them to appropriate resources (74). However, few states require managed care organizations to track referral outcomes or document social needs data, and provisions are difficult to enforce, resulting in low compliance (64).

With federal approval, states can also allow health plans to provide HRSN services as substitutes for (i.e., "in lieu of") services covered under the state plan. In California, multiple newly available Community Support benefits, e.g., for housing deposits, asthma remediation, and sobering centers, are provided using this mechanism. Under this approach, benefits must be voluntarily

Table 2 Approved Section 1115 Medicaid waivers addressing HRSNs in clinical settings[a,b]

State	Select services to address HRSNs			Eligible beneficiary populations	How HRSN services are delivered
	Housing support	Nutrition assistance	Other services		
Arizona	✓		✓	Homeless/ARHL and 1+ additional clinical and social risk criteria	Health plan–contracted provider networks
Arkansas	✓	✓	✓	Individuals with SMI/SUD in rural area; high-risk pregnancies; young adults at high-risk for long-term poverty	Hospitals designated as eligible providers
California	✓	✓	✓	Homeless/ARHL, high utilizers of avoidable care, SMI/SUD, youth with SED; CW-involved children; adults at risk of institutionalization or eligible for long-term care; incarcerated individuals transitioning to community	Health plan–contracted community-based providers, predominantly community health centers
Maryland	✓			1+ health criteria (high utilizer or 2+ chronic conditions) and housing criteria (homeless/ARHL or at risk of institutional placement)	Local government entities administer via contract with community-based partners
Massachusetts	✓	✓		1+ health and 1+ social risk criteria (e.g., homeless/ARHL)	Medicaid accountable care organizations and partnered community-based organizations
New Jersey	✓	✓		Homeless/ARHL; at risk of institutionalization or transitioning from institution to community	Health plan–funded care management teams and housing specialists provide services in coordination with health providers and public housing teams
North Carolina	✓	✓	✓	1+ health risk and 1+ social risk criteria (e.g., homeless/ARHL, food insecurity, risk of interpersonal violence)	Prepaid health plans provide capped allocation to network lead organizations responsible for delivering services via managed networks of human services organizations
Oregon	✓	✓		Homeless/ARHL; high-risk clinical need residing in regions experiencing extreme weather; youth 19–26 years with special health care needs; individuals transitioning from specific institutions to community	Fee-for-service and via local coordinated care organization networks
Rhode Island	✓	✓	✓	Health need and 1+ housing risk factor	State-certified integrated provider organizations

Abbreviations: ARHL, at risk of homelessness; CW, child welfare; HRSNs, health-related social needs; SED, serious emotional disturbance; SMI/SUD, serious mental illness or substance use disorder.

[a]Data from authors' review of approved Section 1115 waivers and 2019–2023 state plan amendments on Medicaid.gov.

[b]We included only waivers with efforts to address HRSNs in clinical settings. We omitted waivers from 16 states and the District of Columbia that addressed HRSNs only in behavioral health or human services settings. All listed waivers included case management or care coordination, so those services are not shown.

adopted by plans as cost-effective alternatives to other types of care. Recent federal guidance clarifies that these services can be used preventively, rather than as immediate substitutes, and that cost-effectiveness can be assessed at the population level rather than individual level (99). Health plan uptake of these services is currently unknown, but, if successful, the in lieu of services option could be used by other states to fund HRSN services under Medicaid.

Overall, existing research on Medicaid managed care plans' investments in HRSNs suggests that health plans are interested in addressing enrollees' HRSNs but are concerned about local provider capacity to successfully contract for and provide new services. Additional uncertainty exists around whether providing such services will increase health plans' financial risk, in terms of potential return of investment or how payments for services addressing HRSNs may affect future capitation rate setting (33, 34, 64, 92, 105).

Medicare

Medicare is a publicly funded health insurance program for people aged 65+ years and those with long-term disabilities. Medicare is administered at the federal level by the Centers for Medicare and Medicaid Services (CMS). Traditional Medicare is fee-for-service; however, almost half of Medicare beneficiaries opt to receive benefits through private managed care instead, i.e., Medicare Advantage (57). Federal rules prohibit the use of Medicare funds to cover nonmedical care, including most long-term services and supports. Thus, except for demonstration projects such as the 2017–2022 $157 million Accountable Health Communities model testing the impact of HRSN system alignment strategies on outcomes for Medicare and Medicaid beneficiaries (5, 80), efforts to address HRSNs in Medicare have been limited largely to voluntary efforts by Medicare accountable care organizations (ACOs) or Medicare Advantage plans (55, 107, 108).

ACOs are provider-led entities with at least some financial risk for overall costs and quality of care and thus, in theory, have more incentive to address HRSNs (84). ACO models were first established in 2012 and have grown rapidly, with ~16% of the Medicare population receiving care through ACOs in 2021. Research on Medicare ACOs suggests that while many ACOs are interested in addressing enrollees' HRSNs, uptake of HRSN referrals and services remains limited due to factors such as quality of available data and data-sharing infrastructure, community-based partner capabilities, and mismatch between current funding cycles and anticipated timelines for returns on investments (108).

Uptake of HRSN services by Medicare Advantage plans also remains low, despite recent legislation expanding flexibility granted to plans to provide such services as supplemental benefits (44, 78, 106). Provision of certain benefits, such as meal delivery and nonmedical transportation, has increased over time, but uptake of more costly or complex benefits such as environmental accessibility adaptations, in-home support services, or adult day care remains low (88, 118).

Qualitative research with Medicare Advantage plans suggests that, like Medicare ACOs, managed care plan administrators believe that addressing HRSNs is important for improving enrollee health and well-being. However, plans are concerned about financial risk and community-based provider organizations' capacity to provide identified HRSN services at scale (48, 107, 136); plans expressed additional concerns about whether addressing HRSNs was within their purview, given limited guidance from CMS (48). At the federal level, CMS has been slow to provide guidance on efforts to address HRSNs in its contracts with Medicare Advantage plans; however, effective 2024, CMS will require Medicare Special Needs Plans (which serve individuals dually eligible for Medicare and Medicaid, those with one or more severe or disabling chronic conditions, and those who live in the community but meet criteria for institutional care) to screen beneficiaries for select HRSNs (65).

EVIDENCE OF IMPACT ON HEALTH CARE UTILIZATION AND COSTS

Sustainability of efforts to address HRSNs in clinical settings is likely contingent on their ability to demonstrate value to health care payers, i.e., improved quality or health outcomes at equivalent or reduced cost (17, 39, 87). Positive impacts of individual-level HRSN interventions, such as income supports or housing, on health and well-being are increasingly well documented in the literature (2, 46, 54, 66, 67, 116, 135). However, research on impacts of HRSN interventions in clinical settings is more limited (46, 66). One major challenge is difficulty disentangling impacts of HRSN services from other, concurrently implemented medical interventions or broader delivery system reforms (66, 115). Another challenge is the heterogeneity of potential HRSN services and eligible populations being evaluated. Existing studies have also been critiqued for low-quality study designs (46, 66, 67), with several failing to account for regression to the mean and other factors that may limit confidence in study results.

Supplemental Material >

Table 3 summarizes existing research examining the impact of US-based HRSN interventions implemented in clinical settings on acute care utilization and costs of care (see **Supplemental Appendix 1** for an overview of our literature review strategy). Briefly, all these interventions included care management, care coordination, or care navigation; many also provided other services such as transitional care, housing assistance, meal delivery, and support services. Many, but not all, studies identified significant reductions in emergency department visits, hospitalizations, and/or costs of care for participants relative to a control group (14, 15, 23, 62, 79, 104, 109, 114, 115, 120, 126, 141). However, only one study explicitly assessed whether reduced expenditures would be sufficient to offset program costs (23). Most studies did not include detailed information on program costs or implementation (e.g., staffing, caseload) (2), limiting replicability in other settings even if proven effective.

In terms of research design, most studies utilized quasi-experimental designs with control groups identified using propensity score matching or another approach (8, 14, 15, 63, 79, 109, 114, 115, 120, 126, 141). Only two studies used randomization techniques (23, 53), and findings from these two studies were mixed: One randomized controlled trial found no impact of an HRSN intervention for health care "superutilizers" on 180-day hospital readmission rates (53); another study, which used a randomized encouragement design to assess the impact of an HRSN intervention for low-income adults with "elevated risk" for high health care utilization, identified a reduction in emergency department utilization but not in overall cost of care (23).

Finally, while not addressed in **Table 3**, study findings regarding program impacts on health care quality and nonacute care utilization were mixed. Multiple studies also identified differential impact for patients of differing medical and social complexity and/or race and ethnicity (14, 15, 62, 112, 114, 115), suggesting the need to better understand the conditions and populations for which these interventions may be most effective and their impact on health equity (31, 105).

In general, early research on HRSN interventions in clinical settings suggests that more research is needed to understand the extent to which different HRSN services impact acute care utilization, costs, and other outcomes; under what conditions; for which populations; over what time period; and at what cost (91, 105). Such evidence will be critical for successful sustainment and scale-up of these interventions.

Research assessing potential spillover effects of HRSN interventions in clinical settings on utilization and cost of care in other sectors could also prove useful for informing future systems alignment efforts. For example, does addressing the HRSNs of recently incarcerated individuals reduce recidivism? To what extent do HRSN interventions in clinical settings increase service utilization or costs to other sectors responsible for addressing identified social needs?

Table 3 Impact of HRSN programs in health care settings on acute care utilization and expenditures[a]

Program name	Service description	Eligibility	Key findings
AHC	Community-based screening, referral, and navigation for HRSN services and/or alignment of cross-sector partners to improve community capacity to address HRSNs	Medicare and Medicaid enrollees with at least 1 HRSN and self-report of 2+ ED visits in last 12 months	Dallas AHC reported lower ED visits and expenditures for enrollees relative to matched controls (109). AHC impact greater for Medicaid and nonwhite Medicare beneficiaries (112)
Behavioral Health Integration and Complex Care Initiative	Complex care management including HRSN screen and referral and integrated physical and behavioral health care by multidisciplinary care team	Medicaid enrollees with 1+ chronic medical condition and 1+ behavioral health condition in 12 participating organizations	Decreased inpatient costs but higher total cost of care for enrollees ($n = 6{,}699$) relative to matched control group. Impact varied by organization type (62)
California's Medi-Cal Whole Person Care	Care coordination, housing assistance, and other social services by multidisciplinary teams under supervision of cross-sector collaborative network of providers	Homeless/ARHL, SMI/SUD, high utilizer, multiple chronic conditions, recently incarcerated	Greater decline in ED visits, inpatient stays, and total estimated payments for enrollees ($n = 247{,}887$) relative to matched control group. Differential impact for SMI/SUD/homeless than medically complex (115)
Camden Coalition of Healthcare Providers	Community-based care management including HRSN screen and referrals by interdisciplinary team of nurses, social workers, and CHWs with access to health information exchange database	Individuals with ≥1 hospital admission in 6 months, 2+ chronic conditions, and 2+ social risk factors (e.g., homeless, mental health disorder, SUD)	No impact on 180-day hospital readmissions relative to control group ($n = 800$) (53)
CARE New Mexico	Navigation, health education, and social support by multidisciplinary team, including CHWs	High utilizers with SUD and poorly controlled chronic disease, identified using predictive risk modeling	Reduced ED visits, inpatient admissions, claims, and payments for enrollees ($n = 448$) relative to matched controls (79)
Commonwealth Care Alliance Meal Delivery Program	Care coordination and meal delivery	Dual eligible adults aged 21+ years with 6+ months meal program enrollment	Reduced ED visits and medical expenditures for enrollees receiving either MTMs or nontailored meals; reduced inpatient visits for MTM enrollees only (15)
Contra Costa Community Connect	Tiered social needs case management, with higher-risk patients served in person and lower-risk patients served by phone	Adult Medicaid beneficiaries identified as at risk for avoidable ED and inpatient admissions based on predictive risk score	Reduced total and avoidable inpatient admissions and slightly reduced ED visits for enrollees relative to controls but not sufficient to offset program cost (23)

(*Continued*)

Table 3 (*Continued*)

Program name	Service description	Eligibility	Key findings
Hennepin Health Medicaid ACO	Care coordination, increased access to integrated PC–behavioral health, dental health, and services to meet social needs via Medicaid ACO provider network	Adults 21–64 years with income ≤75% FPL and no dependents	Higher SUD, homelessness, and ED use among ACO enrollees ($n = 19{,}433$) than among nonenrollees ($n = 73{,}458$); after 6 months, enrollees decreased ED use and hospitalizations while nonenrollees increased hospitalizations (122, 141)
Johns Hopkins Community Health Partnership	Care coordination interventions including HRSN screen and referrals by multidisciplinary teams in AC and PC settings. AC also included transitional care and PC included integrated PC–behavioral health	AC focused on all inpatients. PC used risk prediction to identify Medicare and Medicaid patients with chronic conditions and those at greatest risk for future hospitalization	Reduction in total cost of care for AC and PC enrollees relative to comparison group. AC intervention had mixed impact on utilization; PC intervention decreased hospitalization, ED visits, and 30-day readmissions (13, 14)
Massachusetts General Hospital ED Navigator Program	Care coordination and transition services, including HRSN screen and referrals, by patient navigators in ED care teams	Low- to moderate- acuity ED patients	No impact on 30-day ED readmissions for enrollees with prior ED visit in last 6 months relative to control; decreased 30-day ED readmissions for enrollees with no prior ED visit in last 6 months relative to control (8)
Medicaid ACOs (Maine, Minnesota, Vermont)	Care management including HRSN screen and referrals by contracted providers with one- or two-sided risk for quality and cost of care; providers include partners capable of meeting enrollee behavioral health, long-term care, and social services needs	Medicaid ACO enrollees in Maine, Minnesota, and Vermont	Greater declines in ED visits for enrollees relative to matched controls but mixed impact on inpatient visits. Only one state (Vermont) decreased growth in expenditures for enrollees relative to controls (120)
Medicaid Health Homes State Plan (8 states)	Care management, care coordination, transitional care, family support, referral to community and support services	2+ chronic conditions, 1 chronic condition and at risk of another, or SMI; states may impose additional criteria	7 of 8 states reported fewer ED visits, hospitalizations, and/or costs for enrollees but no matched comparison group (130)

(*Continued*)

Table 3 (*Continued*)

Program name	Service description	Eligibility	Key findings
Medicaid Health Homes (California)	Care management, care coordination, transitional care, family support, referral to community and support services including housing by multidisciplinary teams of health plan–contracted community-based providers	1+ chronic condition criteria and 1+ acuity/complexity criteria (e.g., ≥1 hospital admission, ≥3 ED visits in last year, chronic homelessness)	Greater decline in ED visits, inpatient visits, and total estimated payments for enrollees ($n = 90{,}045$) relative to matched control group. Differential impact for chronic condition compared with SMI (114)
Oregon CCOs	HRSN screening and referral, plus voluntary CCO provision of flexible services at the individual or community level as cost-effective alternatives to covered benefits	Medicaid enrollees or communities that could benefit from flexible services	Reduced inpatient utilization and expenditures relative to neighboring state following shift to global budget for CCOs; cannot differentiate impact of flexible services in relation to larger delivery system reform. Flexible services accounted for <1% of spending (92, 104)
San Francisco Transitions Clinic	Transitional care and case management by care teams in community health centers with access to behavioral health and specific social services for reentry	Recently incarcerated adults with chronic medical conditions	Fewer ED visits after 12 months compared with matched controls but no significant differences in hospitalization (126)
Truman high utilizer model	Hospital-based care coordination including connection to social services by care teams (including RNs, CHWs, and LCSWs)	Adult high utilizers (2+ admissions in 6 months or 3 in 1 year) with 1+ chronic disease, excluding acute oncology or surgery care	Reduced ED visits, hospitalizations, and aggregate charges and costs in prepost tests with no comparison group (117)
Vermont Blueprint for Health	Care coordination, behavioral health counseling, and connection to social services by community health teams (RN led and includes CHWs) in PC	PC patients	Reduced 12-month ED visits, hospitalizations, and associated per-member per-month costs but no comparison group (18)

Abbreviations: AC, acute care; ACO, accountable care organization; AHC, Accountable Health Communities; ARHL, at risk of homelessness; CCOs, coordinated care organizations; CHW, community health worker; ED, emergency department; FPL, federal poverty level; HRSNs, health-related social needs; LCSW, licensed clinical social worker; MTMs, medically tailored meals; PC, primary care; PCP, primary care provider; RN, registered nurse; SMI, serious mental illness; SUD, substance use disorder.

[a]Studies were excluded if they did not report impact on acute care utilization or expenditures or include physical health settings.

EVIDENCE OF INCREASED CROSS-SECTOR COLLABORATION

Cross-sector collaboration refers to the "linking of information, resources, activities, and capabilities by organizations in two or more sectors to jointly achieve an outcome that could not be achieved separately" (24, p. 648). Such collaboration has been described as essential for enacting upstream systems changes needed to address complex SDH such as food insecurity or inadequate housing (101, 139). For example, prior research has demonstrated that health expenditures among older adults and preventable death rates are lower in communities with stronger multisector networks addressing HRSNs in place (22, 102). Multiple case studies have also illustrated the power of cross-sector collaboration for changing the built environment in ways that promote community health and well-being (101, 139).

Acknowledging the potential importance of cross-sector collaboration for meaningful systems change, health care payers and other funders increasingly embed requirements for such collaboration in their programs or purposefully contract with entities with robust relationships in place. For example, California's Medi-Cal Whole Person Care (WPC) program, implemented in 2017–2021 via a Section 1115 waiver, funded only pilots that included cross-sector partners from health care, behavioral health, and human services (36); under WPC, pilots were also permitted to use funds to support partnership and other infrastructure development.

In practice, cross-sector collaboration can be difficult to achieve (24, 26). Effective implementation requires organizational partners with differing priorities and modes of receiving and distributing resources to align around shared purpose, data, financing, and governance (7, 93). Full and equal participation by all partners, an important component of cross-sector collaboration, often does not occur. For example, one study of rural communities' approaches to improving community health found that initiatives were most often led by a single entity, with limited or infrequent interaction from other stakeholders, which in turn limited their reach, scale, and sustainability (145). Identified barriers to more meaningful inclusion of cross-sector partners include differing priorities, structures, and workflows, power differentials, and limited funds to support systems alignment (50, 137, 139). Facilitators include the use of collaborative governance mechanisms, regular meetings focused on fostering shared understanding and purpose, and dedicated resources for data-sharing infrastructure and strategic systems alignment (100).

Evidence regarding the impacts of cross-sector collaborations between health and human services organizations is limited (3). Study design and measurement challenges (e.g., feasibility of randomly assigning communities to a community-level intervention) are barriers to rigorous research on this topic (3, 50). However, as the number of community-level initiatives to address SDH increases (50), more research is needed to assess the extent to which such initiatives meaningfully include health and human services partners and their impact on health and costs of care.

EVIDENCE OF IMPROVED INTEGRATION OF CARE

Integration of care is defined as whether clients receive services that address client-identified needs and are coordinated across all sectors with which clients are involved (43, 123) and is associated with improved access, quality, and satisfaction with care (9). Integration of care is important for individuals with complex medical and social needs, who are more likely to receive services from multiple sectors (82, 110), and is often an assumed benefit of efforts to incorporate social service provision and referrals in clinical settings.

Unfortunately, without purposeful attention to salient organizational, social, and process activities, integration is unlikely to occur (7, 128). One study of ACOs' efforts to address enrollees' nonmedical needs found that medical and nonmedical services were generally not coordinated (55). Similarly, a recent study of multiple, large-scale initiatives in a large urban county found

that although multiple, robust HRSN interventions were being implemented, the lack of strategic unity meant that care remained fragmented rather than integrated (133).

An important consideration in efforts to integrate social services provision and referral in clinical settings is that human services agencies need time and support to develop infrastructure to effectively contract with health care payers, to manage the documentation required for reimbursement, and to provide services at scale (105, 137). Concern about mission drift or conflict of interest that may arise from being asked to prioritize services for narrowly defined populations may lead to a reluctance to collaborate with health care providers and payers (26, 134), hindering integration efforts if not addressed.

These findings are consistent with theories of care integration, which describe integration as a multidimensional, multilevel construct influenced both by specific actions taken to coordinate care for individual clients (35) and by more distal organizational and social factors (128). Organizational factors affecting integration include governance arrangements, financial alignment, contractual agreements, data-sharing infrastructure, staffing practices, and workflows (7, 26). Social factors include shared mission, vision, and culture between organizational partners and quality of collaboration among frontline providers involved in client care (50).

Collectively, extant research reinforces the importance of investing not just in individual HRSNs, but in governance, data-sharing infrastructure, and other system alignment strategies (81, 93). More research is needed to determine which structural approaches and program design elements are most effective to support integration of care and to better understand the impacts of current efforts to integrate social services provision and referrals in clinical settings on underlying systems of care. Are HRSN services in clinical settings bridging gaps in care or competing with other services already available within the broader community? Similarly, are resources allocated to addressing HRSNs in clinical settings complementing or substituting for investment in community-level approaches for addressing SDH?

CONCLUSIONS

Several key themes emerge from our review of health care organization and payer efforts to address SDH. First, although most health care providers report engaging in some social risk screening, significant gaps in screening, referral, and needs fulfillment persist. Principal challenges include inconsistent screening practices, difficulty establishing referral pathways, low patient uptake, and lack of resources to refer clients to (10, 34, 52). Addressing these challenges will require additional investment in salient delivery system and data-sharing infrastructure at the organization and community levels.

Despite concerns about financial risk, health care payers have also expanded funding for HRSN services such as case management, tenancy supports, and meal delivery (73, 107). Preliminary evidence is mixed; some studies suggest that HRSN interventions can reduce acute care utilization and costs of care (15, 79, 109, 114, 115), whereas others find mixed or no impact (8, 14, 23, 53, 62, 120, 126). However, even when these HRSN interventions do reduce acute care utilization or costs, their population impact is likely to be limited due to narrowly defined eligibility criteria, enrollment caps, and indirect influence on underlying social needs (e.g., assistance in searching for housing but not direct housing funds or resources).

A growing number of stakeholders have also expressed concern that increased health care investment will result in the medicalization of social needs (94, 134). Medicalization refers to a phenomenon in which conditions and behaviors caused by broader social problems are treated as individual medical issues (40). Principal concerns with medicalization include a focus on individual needs of narrowly defined populations "who temporarily share the same clinicians or insurance

plan" (94, p. 37) at the expense of broader systems change (30, 134). Some have used concerns about medicalization to argue for addressing SDH through increased funding for the social safety net rather than through the use of health care dollars (111, 138). A key argument against medicalization is that without concurrent attention to underlying community-level social and economic conditions, growth in individual HRSN interventions could ultimately increase health care costs without meaningfully improving population health or well-being (41, 94).

US health care provider and payer uptake of community-level approaches for addressing SDH currently remains limited. Community-level approaches require cross-sector collaboration, which can be difficult for health and human services agencies, who, even when structurally integrated, operate under very different policies, regulations, funding streams, and values (26, 36, 137). Investment in systems alignment strategies that support meaningful partner engagement, alignment of workflows, and development of data-sharing infrastructure could help overcome barriers to collaboration and improve integration of care. Medicaid Section 1115 waivers represent a promising mechanism that a growing number of states are using to provide flexible funding support for broader systems reform and capacity development. However, further research is needed regarding implementation, costs, health, and health equity impacts of different individual- and community-level approaches for addressing SDH. Research is also needed to assess whether addressing HRSNs in clinical settings would have potential spillover effects on other sectors of care.

SUMMARY POINTS

1. In the United States, current efforts to address health-related social needs (HRSNs) in clinical settings focus primarily on the individual level rather than the community level. Individual-level HRSN strategies typically include screening for social risks and either referring or providing direct access to needed services. Community-level action is less common; however, some health systems have successfully partnered with other organizations to support upstream systems change.
2. Public health care payers such as Medicare and Medicaid have begun incentivizing providers and managed care plans to address beneficiaries' health-related social needs; however, uncertainty about local provider capacity to successfully contract for and provide these services and about the financial risk of providing such services has limited uptake by these payers.
3. Current evidence regarding the effectiveness of HRSN interventions in clinical settings is limited and mixed; some studies have found evidence of reduced acute care utilization and medical expenditures for service recipients and others have found mixed or no impact. Multiple studies also identified differential impact of interventions for patients of differing medical and social complexity as well as race and ethnicity. More research is needed to understand the extent to which different HRSN services impact acute care utilization, costs, and other health outcomes; under what conditions; for which populations; over what time period; and at what cost. Research is also needed to assess potential spillover effects of these interventions on other sectors.
4. Key lessons learned in implementing HRSN interventions in clinical settings include the importance of patient-centered, trauma-informed strategies for engaging patients and of dedicated funding for infrastructure and partnership development needed to deliver

HRSN services and ensure meaningful integration of care. Identifying patients' HRSNs is not helpful if services are not available within the community to address these needs; thus, it is also important to ensure that a focus on screening and referrals for social needs do not occur at the expense of broader, upstream social change.

DISCLOSURE STATEMENT

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