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RESEARCH ARTICLE

Advancing health equity through social care interventions

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Abstract

Objective: To use evidence on addressing racism in social care intervention research to create a framework for advancing health equity for *all* populations with marginalized social identities (e.g., race, gender, and sexual orientation). Such groups have disproportionate social needs (e.g., food insecurity) and negative social determinants of health (SDOH; e.g., poverty). We recommend how the Agency for Healthcare Research and Quality (AHRQ) could advance health equity for marginalized populations through social care research and care delivery.

Data Sources and Study Setting: This commentary is informed by a literature review of social care interventions that were affiliated with healthcare systems; input from health equity researchers, policymakers, and community leaders attending the AHRQ Health Equity Summit; and consensus of the authors.

Principal Findings: We recommend that AHRQ: (1) create an ecosystem that values research on SDOH and the effectiveness and implementation of social care interventions in the healthcare sector; (2) work with other federal agencies to (a) develop position statements with actionable recommendations about racism and other systems that perpetuate marginalization based on social identity and (b) develop aligned, complementary approaches to research and care delivery that address social marginalization; (3) advance both inclusive care delivery and inclusive research teams; (4) advance understanding of racism as a social determinant of health and effective strategies to mitigate its adverse impact on health; (5) advance the creation and scaling of effective strategies for addressing SDOH in healthcare systems, particularly in co-creation with community partners; and (6) require social care intervention researchers to use methods that advance our understanding of social health equity.

Conclusions: AHRQ, as a federal agency, could help advance health equity using a range of strategies, including using the agency's levers to ensure AHRQ stakeholders examine and address the unique experiences of socially marginalized populations in SDOH and social care intervention research.

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KEYWORDS

determinants of health/population health/socioeconomic causes of health, health care disparities, health equity, health promotion/prevention/screening, social determinants of health

What is known on this topic

- Racism (e.g., structural racism) is a root cause of persistent racial and ethnic inequities in health and healthcare outcomes.
- Socially marginalized groups, such as racially minoritized populations, disproportionately experience unmitigated social needs (e.g., food insecurity and housing instability).
- Payors and healthcare systems are interested in addressing patient's social needs and community-level social determinants of health as a part of comprehensive healthcare strategies to reduce health inequities.

What this study adds

- Few social care intervention studies have conceptualized race as a proxy for exposure to racism or examined differential treatment effects of the intervention by race or ethnicity.
- Addressing specific sociocultural priorities of populations with marginalized social identities is an important strategy to increase the effectiveness of social care interventions.
- The Agency for Healthcare Research and Quality could advance social health equity by supporting standards around social identity data, aligning activities across federal agencies, and funding social care research and more.

1 | INTRODUCTION

“Social determinants or drivers of health (SDOH) are the conditions in which people are born, grow, work, live and age, and the wider set of forces and systems that shape these conditions of daily life, such as economic systems (e.g., capitalism), structural racism, and other forms of marginalization based on social identity (e.g., gender, sexual orientation, immigration status).”¹ SDOH exert a powerful influence on health and well-being by shaping access to health-promoting resources (e.g., healthy food, safe housing and neighborhoods, healthcare, education, wealth, and power) and exposure to health-harming factors (e.g., pollution, occupational hazards, stigmatization, and discrimination).²⁻⁵ Toxic stress incurred from cumulative negative social exposures can have biological consequences that increase the risk of acute and chronic conditions.⁶⁻⁸ Thus, SDOH are critical factors in the disproportionate rates of morbidity and mortality across social strata.^{9,10}

For individuals, community-level adverse social determinants often manifest in the form of individual *social needs*, such as food, housing, and transportation insecurity. Addressing social needs, particularly within (or in collaboration with) healthcare systems, is sometimes referred to as “social care.”^{11,12} In the United States, the emphasis on social care has had several motivations, including: (1) the reduction of health inequities among historically marginalized groups, particularly racially minoritized groups, such as Black or African American persons, Hispanic persons, or American Indian persons, who are disproportionately burdened by social needs; and (2) to reduce healthcare costs of acute and chronic conditions (e.g., acute cardiovascular events, renal failure, and avoidable hospitalizations). Recent healthcare payment and practice innovations have incentivized efforts to

address social needs, such as food insecurity, housing instability, and transportation barriers.¹³⁻¹⁷ In recognition of the importance of the health systems' role in addressing social needs, several national social screening and intervention measures will launch in 2023. These initiatives from the National Commission for Quality Assurance (NCQA),¹⁸ The Joint Commission,¹⁹ and Centers for Medicare and Medicaid Services (CMS)²⁰ provide unprecedented new opportunities to identify best practices for implementation of social needs screening and care. Importantly, The Joint Commission has set health equity as a National Patient Safety Goal.²¹

Racially minoritized persons experience social disadvantage due to racism, regardless of their socioeconomic class. Racism can cause chronic stress, autonomic dysregulation, disorders within the hypothalamic-pituitary-adrenal axis, telomere shortening, epigenetic changes, and a host of other pathophysiological changes that put racially minoritized populations at increased risk for disease and death.^{4,6,7} These mechanisms explain how racism “gets under the skin.” As a result, social disadvantage can be experienced more extremely by racialized minorities than by White populations and disproportionately affect their health. For example, as a result of racism (structural, institutional, and interpersonal) and redlining, Black families are more likely to live in neighborhoods with high concentrations of poverty, lower quality housing and schools, and fewer public resources than White families with the same income.²²⁻²⁴

Other socially marginalized populations suffer disproportionate social needs as well. For example, many migrant populations in the United States are ineligible for federal food assistance programs such as the Supplemental Nutrition Assistance Program (SNAP) or the Women, Infants and Children (WIC) program, as well as many other federal

health-related programs.²⁵ Persons identifying as part of the lesbian, gay, bisexual, transgender, queer/questioning, intersex, asexual/aromantic/agender, and more (LGBTQIA+) community, particularly those who identify as transgender, experience stigma-related violence that makes navigating healthcare and community settings more challenging, especially in settings that do not use trauma-informed practices.²⁶ These underlying systemic disadvantages may make social care interventions less effective for racialized minorities or other individuals with marginalized social identities, unless the interventions are intentionally designed to meet the specific needs, preferences, or sociocultural identities of populations who face structural, institutional, and interpersonal inequities.

To date, little work has examined whether the impacts of social care interventions are the same across populations with different social identities or how these interventions might be designed to improve outcomes among marginalized groups. The Agency for Healthcare Research and Quality (AHRQ) already has a significant foundation upon which to build the research infrastructure necessary to support the investigation of these important questions and the implementation of the solutions. For example, for the last 20 years, AHRQ has published the National Healthcare Quality and Health Disparities Report, which presents trends in healthcare and healthy living by race, ethnicity, education, income, geographic location, gender, and health insurance status.²⁷ In May of 2023, AHRQ released a Special Emphasis Notice to announce its interest in health services research that advances health and healthcare equity. AHRQ's webpage has resources to help healthcare organizations screen patients for social risks and needs, as well as address community-level SDOH and patient-level social needs.²⁸ There is a Division of Practice Improvement, part of the Center for Evidence and Practice Improvement, which creates materials for healthcare systems and professions to improve the care delivery to patients, increase the adoption of effective healthcare practices, redesign health systems for effectiveness and efficiency, and promote shared decision-making.²⁹ AHRQ also has an ongoing commitment to support primary care practice-based research networks (PBRNS), through capacity building and technical assistance, national webinars, annual conferences, a PBRN registry to facilitate collaboration, and more.³⁰

In this article, we begin by summarizing the findings of a recent rapid review commissioned by Patient-Centered Outcomes Research Institute (PCORI) that examined how race, a proxy for racism, is considered in social care intervention research affiliated with healthcare systems and how social care interventions have been designed to meet the needs of racial and ethnic minoritized populations. We then consider the barriers and opportunities to applying evidence from the extant literature to advance health equity for groups with marginalized social identities beyond race and ethnicity. Finally, we make specific recommendations regarding how AHRQ could improve social care practices and innovations to advance health equity in the United States.

2 | METHODS

With the goal of translating review findings into actionable recommendations to promote health equity, the authors discussed the

results from a PCORI review (described below) with participants at the July 2022 AHRQ Health Equity Summit, which represented a diverse group of health equity researchers, policymakers, and community leaders. The Summit and its stakeholder engagement process are described in detail in the [Supplementary Material](#), and involved in group discussions about what is needed to effectively address structural inequities and create equitable systems of healthcare delivery that improve patients' experiences of care and health outcomes. Summit participants provided recommendations to AHRQ to consider for advancing health equity in a range of areas, including SDOH and social care. Mistry et al. provide a compelling commentary about the Summit that is featured in this special issue of Health Services Research.³¹ For the purposes of this paper, we define "health equity" as encompassing equity in healthcare delivery as well as health outcomes.

This HSR paper was also informed by a recent PCORI-funded rapid review of social care interventions affiliated with healthcare systems, in which members of this authorship team (CC, MV, CF, YC, LG, MP) sought to determine how well existing research on healthcare-based social needs interventions research contributed to advancing racial health equity.³² Leveraging insights from previous work, the research team developed a framework to evaluate the extent to which studies advanced racial health equity.³² The research team also examined the extent to which interventions were socioculturally tailored or adapted to mitigate the impact of racism.

The constructs initially in the framework included *conceptual thoughtfulness* and *analytic informativeness*. Studies were considered *conceptually thoughtful* if they acknowledged race as a social construct, proxy for racism, or a form of social disadvantage (e.g., neighborhood disadvantage and sociopolitical disadvantage). Conceptual thoughtfulness was deemed important for advancing racial health equity because if race is not explicitly described as a social construct related to racism, it is often incorrectly interpreted as biological, and efforts to change disparate outcomes are unlikely to be appropriately framed. However, when race is correctly understood as a marker of exposure to racism—historical, structural, systemic, interpersonal, or internalized—racial disparities will be correctly understood to be the result of racism, and resulting interventions will seek to address racism and its impacts, instead of biological differences. Studies were considered *analytically informative* if they assessed differential impact by race or ethnicity, either through interaction/effect modification analyses or stratified/subgroup analyses. Examining differential impact by race or ethnicity among studies that include multiple racial or ethnic groups is crucial for assessing whether social needs interventions are at least as effective for minoritized groups as for nonminoritized groups (so that they do not widen inequities) or ideally more effective for minoritized groups (so that they might decrease health inequities).

Later in the project, we added the construct of sociocultural tailoring or adaptation. Studies were considered *tailored* if the intervention was designed and implemented with the explicit intention to be responsive to and appropriate for the intended population. Adaptation was defined as intentionally modifying or changing the intervention content or delivery with the explicit intention of being responsive and

TABLE 1 Approaches to tailoring or adapting social care interventions.

Aspects of tailoring	Studies, n (%)
CHW/patient liaison shared race, ethnicity, or language	10 (89%)
Community/partner input on study design	2 (17%)
Culturally appropriate resources provided (not including matching to community)	2 (17%)
Other formative investigation to understand population needs/preferences (not including community involvement)	1 (8%)
Community member- or CHW-led training for study staff	1 (8%)
Cultural sensitivity training or training about community resources	3 (25%)
Community-based discussion of findings	1 (8%)

Abbreviation: CHW, community health worker; n, number.

appropriate. Tailoring and adapting were considered important for advancing racial health equity because interventions that are not designed to mitigate the impacts of racism are likely to be less effective. Table 1 describes strategies used to tailor and adapt interventions that included race or ethnicity as a variable in the analyses.

The PCORI-funded rapid review applied the framework to a previously conducted systematic review of the social intervention literature.³³ Key findings from the published review are summarized as follows (see Appendix Table 1): (1) of 152 studies of social care conducted in multiracial or multiethnic populations, only 44 studies (29%) included race or ethnicity in their analyses. Of these, only 4 (9%) were conceptually thoughtful (i.e., characterized race or ethnicity as proxies for racism). (2) Of the 44 intervention studies that included race or ethnicity in their analyses, 12 described ways in which the intervention had been tailored or adapted for specific racial or ethnic groups (Table 1).³⁴⁻⁴⁵ (3) Among the 152 studies, only 21 studies (14%) tested for differential intervention impacts by race or ethnicity (i.e., were analytically informative). Fourteen of the 21 found no differences in outcomes by race or ethnicity (although the studies were not explicitly powered to detect those differences). Among the seven that found differential effects, four reported reduced disparities. (4) There were three studies that were both conceptually thoughtful and analytically informative.^{35,44,45} For example, Krieger et al. evaluated the effectiveness of a community health worker (CHW) intervention to improve clinical asthma outcomes and decrease urgent care utilization. The study population was racially/ethnically diverse and chosen because of structural inequities that increased their risk for asthma incidence and poor control of the disease (e.g., substandard housing with poor ventilation).³⁵ They found improved quality of life, reduced asthma symptoms, and decreased urgent care utilization; no differences were reported based on the race/ethnicity of the caregiver.³⁵

In summary, the results of the review indicated that evaluations of social care interventions in healthcare settings have rarely

communicated a conceptually thoughtful understanding of racism as the root cause of racial health inequities; few interventions were socioculturally tailored or adapted for the specific racial or ethnic group they were intended to serve; and most studies did not explore differential treatment effects by race or ethnicity.

2.1 | Social identity in social care intervention research

Findings from the published PCORI review indicate there are still methodological improvements needed to ensure that the enthusiasm and innovation around social care are harnessed to address racial health equity. Some scholars have underscored opportunities to design social care specifically to advance racial health equity. For example, a recent critique of the National Academies of Sciences, Engineering, and Medicine (NASEM) social care framework for health-care systems proposed grounding social care work more broadly in abolition—the vision of freedom, equity and justice for Black people, and other socially marginalized populations.⁴⁶

The PCORI review focused primarily on evaluating social care interventions based on their ability to advance racial health equity. It focused on marginalization by race or ethnicity as opposed to other marginalized identities because in the United States, racism—and anti-Black racism in particular—generated and continues to perpetuate pervasive, profound, and persistent structural inequities. Structural inequities based on ability status, gender, gender identity, sexual orientation, immigration status, language, religion, and other identities influence health and also intersect with structural racism in ways that compound disadvantage. There is evidence that persons living at the intersection of multiple marginalized social identities (e.g., by race and gender identity) have worse health outcomes than persons with a single marginalized identity or non-marginalized identities.⁴⁷⁻⁴⁹ Therefore, it is reasonable to interrogate all social care interventions by asking whether they are designed based on the historical and prevailing characteristics that drive experiences of marginalization across various identities.

The constructs of conceptual thoughtfulness, analytic informativeness, sociocultural tailoring and adaptation, and concepts related to abolition can be applied to other marginalized identities, such as gender, which may also be falsely interpreted as relating to biological differences rather than socially driven ones.^{50,51} We specifically call attention to gender because women and gender nonconforming individuals are disproportionately disadvantaged, regardless of the racial/ethnic group to which they belong. “Conceptually thoughtful” research will require investigators to understand and articulate the meanings of various social identities and how they influence approaches to and experiences in health and social care. Similarly, “analytically informative” social care research should examine whether some groups experience better outcomes based on aspects of their social identity. Finally, interventions should be socioculturally tailored to fit the specific needs of the marginalized populations they intend to serve, using principles of abolition and freedom to guide their development.

2.2 | Implications and recommendations

The potential for social care interventions to advance health equity should be explored based on an awareness that social disadvantage is experienced differently by minoritized populations. As the PCORI rapid review revealed, social care intervention research has not yet been fully harnessed to advance racial health equity. When race-blind social needs interventions fail to produce evidence of effectiveness (e.g., improved health and reduced costs), they may be abandoned as policy solutions because they are assumed to be ineffective rather than inadequately designed or implemented. Ensuring that interventions advance health equity requires explicitly designing them based on the unique sociocultural context and needs of the groups intended to benefit from the intervention and holding the interventions accountable for equitable outcomes.

AHRQ is in a unique position to provide leadership and support to advance several health equity goals that have specific implications for social care research and practice. The recommendations address high-level leadership and coordination intended to establish cross-organizational standards and norms that account for social identity, suggest expansions of existing agency infrastructure, and address funding priorities and requirements.

1. Support an ecosystem that values research on SDOH and the effectiveness and implementation of social care interventions in the healthcare sector.

The capacity to advance health equity rests on a foundation of shared understanding among key stakeholders (e.g., policymakers, healthcare-related organizations, funders, community members, and researchers) on the frameworks, definitions, and measurements relevant to social health equity. For example, a shared conceptual framework for how social identity influences health and healthcare, shared data definitions and data collection standards will facilitate program evaluation. Measurement norms are needed around the collection of Race, Ethnicity, Ancestry and Language (REAL) and Sexual Orientation/Gender Identity (SOGI) data (including measures on the expected levels of completeness), individual-level social needs (e.g., housing insecurity), place-based risks (e.g., area deprivation index and other geospatial data), and community assets/resources (e.g., community centers). AHRQ could host a forum with key stakeholders for input. Shared requirements for data collection and reporting could help identify social and healthcare inequities and shape future healthcare initiatives. Further, AHRQ could support learning networks that include transdisciplinary teams of healthcare delivery systems, community organizations, and academic researchers to evaluate the growing number of social needs interventions emerging in healthcare systems. Support could take many forms, including specific Request for Applications (RFAs) and expansion of existing programming within the PBRN Initiative and the Division of Practice Improvement. Such learning networks could create standardized data on geography, payor mix, social needs/assets, and patient populations to help assess the impact of social care initiatives on specific populations and to refine data collection and practice standards over time.

2. Work with other federal agencies to (a) develop position statements with actionable recommendations about racism and other systems that perpetuate identity-based marginalization and (b) develop aligned, complementary approaches to research and care delivery that address social marginalization.

This cross-agency work should begin by developing a common language around marginalization and a common understanding of its negative health effects (see Recommendation #1). Position statements are powerful, oft-cited, and motivating. They indicate priorities and subsequently may galvanize research. Aligned agencies could propose reinforcing approaches to action-oriented research that identifies and reduces the mechanisms of marginalization, as well as mitigates its negative health effects. These activities could serve as a foundation for other collaborations. For example, guidelines on clinical preventive services (e.g., US Preventive Services Task Force recommendations) and public health interventions (e.g., Community Preventive Services Task Force recommendations) are typically siloed. Creating mechanisms (e.g., cosponsored workshops) to bridge recommendation development processes may generate comprehensive approaches for interventions that address both upstream and downstream drivers of health. Similarly, supporting primary studies that coordinate cross-sectoral and structural solutions may generate more effective social care interventions.

3. Advance both inclusive care delivery and inclusive research teams.

Some social care interventions fail because they are designed and implemented without attention to “inclusive excellence” or the “alignment between those who design programs, services, and policies and those who are expected to use them.”⁵² A lack of inclusive diversity can undermine the excellence and innovation needed to advance health equity. The people represented in AHRQ social care research must have representation from the community or condition of interest. Behaviors used to foster inclusion should be integrated into research processes and outlined in AHRQ’s health equity reports. AHRQ’s Division of Practice Improvement and PBRN Initiative represent excellent venues for dissemination of resources, information, and technical assistance to clinicians and healthcare practices across the country. We also recommend that AHRQ require the following from its research grantees: (1) clearly define the target population and the groups likely to use intervention in all program phases and (2) include a process (or a description of prior work) that provides the research team with the skill set to engage in authentic change, build trust, and share power with marginalized populations. In addition, part of the research proposal evaluation should assess the representativeness of the target population by the research team. For example, AHRQ could explicitly note in the RFA that additional considerations will be given to investigative teams that include members (e.g., principal investigator, coinvestigators, and consultants) that reflect the study population of interest.

4. Advance understanding of racism as an SDOH and effective strategies to mitigate its adverse impact on health.

Evidence has shown that racism traumatizes patients, triggers abnormal pathophysiological changes, and negatively impacts trust, relationships, and subsequent interactions with clinical care teams. The effects of racism can worsen patient health and contribute to health disparities. Few federal grants have specifically called for interventions that address racism, yet it is a fundamental driver of health inequities.⁵³ More work must be done to understand these mechanisms and how to intervene in clinical settings to mitigate racism's effects. Future research should also advance our understanding of other forms of social marginalization (e.g., misogyny and heteronormativity) and the mechanisms by which they produce ill health. Future research should also identify impactful approaches for assessing bias (perceived or experienced) at the point of care and effective interventions on interpersonal communication to address such bias, as well as intervention studies that counteract structural racism and other structural inequities, including within clinical guidelines and algorithms. We suggest that AHRQ issues a new series of funding calls that address the following issues, with a priority on the structural and institutional (vs. interpersonal) aspects of inequity/racism, as this represents the least studied construct with clinical outcomes. Specifically, we recommend funding research and interventions that: (1) conceptualize racism and other forms of social marginalization as SDOH and further elucidate their role as a driver of health inequities; (2) develop interventions that address structural and institutional racism and other forms of structural/institutional inequities for patients (and potential patients) in healthcare delivery systems; (3) develop patient-centered outcomes on measures of racism and social health inequity as part of patient experience measures (e.g., respectful care and equitable quality) in healthcare; and (4) develop interventions that support clinical teams in addressing interpersonal bias (beyond implicit bias training) focused on patient interactions with clinical teams.

5. Advance the creation and scaling of effective strategies for addressing SDOH in healthcare systems, particularly through co-creation with community members.

While social needs assessments are increasingly recognized as a standard part of clinical care, little research has focused on the best practices for social needs screening and social care delivery for specific groups nor on those groups' experiences of seeking services. Identification and support for unmet social needs require an understanding of community assets, effective strategies, and an integration with community services for specific populations. In addition, the interconnectedness of social needs (e.g., financial insecurity, food insecurity, transportation barriers, and housing instability) require integrated *cross-sectoral* solutions, such as medical-legal partnerships⁵⁴ and other collaborations with community organizations.⁵⁵ Health in All Policies (HiAP) is "an approach to public policy that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity."⁵⁶ HiAP involves cross-sectoral solutions but *begins* with a policy area that may have multiple health impacts.⁵⁷ A HiAP approach for structural racism/structural

inequities would be an appropriate model for federal agencies, such as AHRQ, to collaborate with each other and nongovernmental agencies. Programs and strategies should be developed to identify and scale best practices for the implementation of screening, needs confirmation, referrals for, and receipt of social services across the continuum of healthcare delivery. This would be best served by the use of implementation science methods. AHRQ funding should include dedicated development time for intervention tailoring (ideally) or adaptation, in partnership with communities. This requires stakeholder engagement, intervention development, pilot testing and iteration, and core components of implementation science methods. This explicit funding stream would help to ensure interventions address the sociocultural needs of marginalized populations, and a requirement should be that part of this time be used to ensure skill development in authentic engagement, trust building, and power-sharing. Working with community-based organizations, engaging community members, and leveraging community strengths and assets are important to the process. Such approaches are more likely to promote trust and adoption, create sustainable results, and have a measurable impact. A recent National Academy of Medicine (NAM) Perspective article noted that achieving health equity will require this kind of meaningful community engagement.⁵² AHRQ should consider funding opportunities that place the community organizations as the lead organization, as is used in NIH's Community Partnerships to Advance Science for Society (ComPASS) mechanism.⁵⁸ Ideally, funded interventions to address social needs would be prioritized based on factors that are shaped by structural or interpersonal inequities (e.g., disease control, geography, and magnitude of health inequities) and that operate at the intersection of multiple identities. For example, the Black transgender community is among the most socially marginalized communities in the United States and experiences high rates of physical violence and hate crimes.²⁶ Future intervention studies and publications should describe whether sociocultural tailoring was done, and if so, describe in detail who was involved, what the design process entailed, and other critical elements, using an implementation science lens. We recommend that AHRQ prioritize funding social care intervention studies that: (1) incorporate community-engaged research approaches and (2) socioculturally tailor or adapt the interventions and include timetables that enable emerging strategies to be refined based on community partner input.

6. Encourage social care intervention researchers to use methods that advance our understanding of social health equity.

To advance the field of racial health equity, future work should use a theoretically sound conceptualization of how marginalization and identity-based discrimination affect other social determinants of health and use this understanding to inform methodological approaches to developing, implementing, and evaluating social care interventions. Ideally, research on SDOH and social care interventions would: (1) provide a rationale for the drivers of potential differences in health outcomes by social identity and describe how a given social identity is measured; (2) in studies that include

populations with multiple social identities (e.g., race and gender), stratify analyses by populations, and examine interaction effects across different social identities. Research and evaluation efforts should be sufficiently resourced for rigorous approaches, adequate sample sizes, and sufficient follow-up periods to enable meaningful assessments of: (1) differential treatment effects that could result from racism or other forms of social marginalization and (2) demonstration of impact on eliminating differences or addressing inequities. For studies of a single social identity (e.g., a single racial or ethnic group), within-group analyses should be conducted to identify those for whom the intervention is most effective (e.g., based on the intersection with other social identities, other factors such as acculturation, community cohesion, magnitude of program exposure, and self-efficacy). AHRQ should explicitly require the use of these research methods in their RFAs. AHRQ could complement their existing SDOH database with the creation of a central repository of expert-recommended measures of marginalization, racism, sexism, and other forms of oppression, similar to the PhenX Toolkit,⁵⁹ a web-based catalogue of survey instruments measuring SDOH. Finally, the dissemination of these research methods and resources within AHRQ's PBRN would be a valuable addition.

3 | CONCLUSIONS

Marginalization based on social identity (e.g., race, gender, and sexual orientation) has been long known, but its impact on healthcare delivery and health outcomes and its mechanisms of actions have not been fully explored. Social care interventions that seek to mitigate the disproportionate burden of social needs among marginalized populations, that arise from their oppression and population-level exposure to higher rates of negative SDOH, must take into account social identity if they are to be optimally effective, sustainable, and advance social health equity. This means socioculturally tailoring or adapting interventions with diverse research teams, in collaboration with communities, to meet the needs and preferences of the intended populations; conceptually understanding that race is a proxy for exposure to racism and that structural racism and structural inequities cause health inequities for socially marginalized populations; and using methods that can advance social health equity.

AHRQ has a history of commitment to health equity, available tools and resources to help healthcare systems assess and address social risks and needs for patients as well as SDOH within the communities they serve, and the infrastructure to reach and teach clinical practices across the country research methods and evidence-based practice. AHRQ could advance social health equity by helping to create organizational norms and standards around collecting social identity data, better aligning activities across federal agencies, publishing position statements about racism and other forms of social marginalization, supporting inclusive care and diverse research teams, and funding innovative SDOH and social care research that addresses marginalization and evaluates heterogeneity of effects across and within populations.

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REFERENCES

1. World Health Organization. Social Determinants of Health. Accessed November 28, 2022. https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1
2. Knighton AJ, Stephenson B, Savitz LA. Measuring the effect of social determinants on patient outcomes: a systematic literature review. *J Health Care Poor Underserved*. 2018;29(1):81-106. doi:10.1353/hpu.2018.0009
3. Jehonathan B, Cormack D, Harris R, Paradies Y. Racism and health service utilization: a systematic review and meta-analysis. *PLoS One*. 2017;12(12):e0189900. doi:10.1371/journal.pone.0189900
4. Peek ME. Racism and health: a call to action for health services research. *Health Serv Res*. 2021;56(4):569-572. doi:10.1111/1475-6773.13693
5. Fiscella K, Sanders MR. Racial and ethnic disparities in the quality of health care. *Annu Rev Public Health*. 2016;37:375-394. doi:10.1146/annurev-publhealth-032315-021439
6. Krieger N. Discrimination and health inequities. *Int J Health Serv*. 2014;44(4):643-710.
7. Brisson D, McCune S, Wilson JH, Speer SR, McCrae JS, Calhoun KH. A systemic review of the association between poverty and biomarkers of toxic stress. *J Evid Based Soc Work*. 2020;17(6):696-713. doi:10.1080/26408066.2020.1769786
8. Barnhouse M, Jones BL. The impact of environmental chronic and toxic stress on asthma. *Clinic Rev Allerg Immunol*. 2019;57:427-438.
9. Claussen B, Davey S, Thelle D. Impact of childhood obesity and adulthood socioeconomic position of cause specific mortality: the Oslo Mortality Study. *J Epidemiol Community Health*. 2003;57(1):40-45. doi:10.1136/jech.57.1.40
10. Long CL, Franklin SM, Hagan AS, et al. Health-related social needs among older adults enrolled in Medicare advantage. *Health Aff*. 2022;41(4):557-562. doi:10.1377/hlthaff.2021.01547
11. Alderwick H, Gottlieb LM. Meanings and misunderstandings: a social determinants of health lexicon for health care systems. *Milbank Q*. 2019;97(2):407-419. doi:10.1111/1468-0009.12390
12. National Academies of Sciences, Engineering and Medicine. *Integrating Social Care into the Delivery of Health Care: Moving Upstream to Improve the Nation's Health*. The National Academies Press; 2019. doi:10.17226/25467

13. Wodchis WP, Shaw J, Sinha S, Bhattacharyya O, Shahid S, Anderson G. Innovative policy supports for integrated health and social care programs in high-income countries. *Health Aff.* 2020;39(4):697-703. doi:10.1377/hlthaff.2019.01587
14. Veldheer S, Scartozzi C, Knehans M, et al. A systematic scoping review of how healthcare organizations are facilitating access to fruits and vegetables in their patient populations. *J Nutr.* 2020;150(11):2859-2873. doi:10.1093/jn/nxaa209
15. Koeman J, Mehdipanah R. Prescribing housing: a scoping review of health system efforts to address housing as a social determinant of health. *Popul Health Manag.* 2021;24(3):316-321. doi:10.1089/pop.2020.0154
16. Tanumihardjo JT, Gunter KE, Peek ME. Addressing food insecurity is a matter of health: how healthcare organizations and community partnerships can improve food access. *Health Aff Forefront.* 2021. doi:10.1377/forefront.20210616.615098
17. Shekelle PG, Begashaw MM, Miake-Lye IM, Booth M, Myers B, Renda A. Effect of interventions for non-emergent medical transportation: a systematic review and meta-analysis. *BMC Public Health.* 2022;22(1):799. doi:10.1186/s12889-022-13149-1
18. NCAQ News. NCAQ updates and releases new quality measures for HEDIS 2023 with a focus on health equity: stratifying measures by race/ethnicity and affirming gender identity helps tackle health disparities. Accessed on February 23, 2023. <https://www.ncqa.org/news/ncqa-updates-releases-new-quality-measures-for-hedis-2023-with-a-focus-on-health-equity-stratifying-measures-by-race-ethnicity-and-affirming-gender-identity-helps-tackle-health-disparities/>
19. The Joint Commission. R3 Report: Requirement, Rationale, Reference. New Requirements to Reduce Health Care Disparities. Issue 36. 2022.
20. Heilman E. An intro to CMS's SDOH measures. Medisol Blog. 2022. Accessed February 23, 2023. <https://blog.medisol.com/articles/intro-cms-sdoh-measures>
21. The Joint Commission. National Patient Safety Goal to Improve Health Care Equity. R³ Report. Issue 38. 2022. Accessed February 23, 2023. <https://www.jointcommission.org/standards/r3-report/r3-report-issue-38-national-patient-safety-goal-to-improve-health-care-equity/>
22. Firebaugh G, Acciai F. For blacks in America, the gap in neighborhood poverty has declined faster than segregation. *Proc Natl Acad Sci U S A.* 2016;113(47):13372-13377. doi:10.1073/pnas.1607220113
23. Quillian L. Segregation and poverty concentration: the role of three segregations. *Am Sociol Rev.* 2012;77(3):354-379. doi:10.1177/0003122412447793
24. Badger E. Black Poverty Differs from White Poverty. Washington Post. 2015. Accessed February 23, 2023. <https://www.washingtonpost.com/news/wonk/wp/2015/08/12/black-poverty-differs-from-white-poverty/>
25. Broder T, Lessard G, Moussavian A. Overview of immigrant eligibility for federal programs. Accessed February 23, 2023. <https://www.nilc.org/issues/economic-support/overview-immeligfedprograms/>
26. Flores AR, Langton LL, Meyer IH, Romero AP. Victimization rates and traits of sexual and gender minorities in the United States: results from the National Crime Victimization Survey, 2017. *Sci Adv.* 2020;6(40):eaba6910. doi:10.1126/sciadv.aba6910
27. AHRQ. National healthcare quality and disparities reports. Accessed July 10, 2023. <https://www.ahrq.gov/research/findings/nhqrd/index.html>
28. AHRQ. SDOH data and analytics. Accessed July 10, 2023. <https://www.ahrq.gov/sdoh/practice-improvement.html>
29. AHRQ. Center for evidence and practice improvement. Accessed July 10, 2023. <https://www.ahrq.gov/cpi/centers/cepi/dpi.html>
30. AHRQ. About PBRNs. Accessed July 10, 2023. <https://www.ahrq.gov/ncepcr/research-transform-primary-care/pbrn/index.html>
31. Mistry KB, Chesley FD, Chin MH, Valdez RB. Advancing health equity- agency for healthcare research and quality research and action agenda. *Health Serv Res.* 2023;58(S3):275-280.
32. Cené CW, Viswanathan M, Fichtenberg CM, et al. Racial health equity and social needs interventions: a review of a scoping review. *JAMA Netw Open.* 2023;6(1):e2250654. doi:10.1001/jamanetworkopen.2022.50654
33. Viswanathan M, Kennedy S, Eder M, et al. *Social Needs Interventions to Improve Health Outcomes: Review and Evidence Map.* Patient-Centered Outcomes Research Institute; 2021. Accessed February 23, 2023. <https://www.pcori.org/impact/evidence-synthesis-reports-and-interactive-visualizations/evidence-maps-andvisualizations/social-needs-interventions-improve-health-outcomes>
34. Juillard C, Cooperman L, Allen I, et al. A decade of hospital-based violence intervention: benefits and shortcomings. *J Trauma Acute Care Surg.* 2016;81(6):1156-1161.
35. Krieger JW, Takaro TK, Song L, Weaver M. The Seattle-King County Healthy Homes Project: a randomized, controlled trial of a community health worker intervention to decrease exposure to indoor asthma triggers. *Am J Public Health.* 2005;95(4):652-659.
36. Morales ME, Epstein MH, Marable DE, Oo SA, Berkowitz SA. Food insecurity and cardiovascular health in pregnant women: results from the food for families program, Chelsea, Massachusetts, 2013-2015. *Prev Chronic Dis.* 2016;13:E152.
37. Kelley L, Capp R, Carmona JF, et al. Patient navigation to reduce emergency department (ED) utilization among Medicaid insured, frequent ED users: a randomized controlled trial. *J Emerg Med.* 2020;14:14-977.
38. Krieger J, Takaro TK, Song L, Beaudet N, Edwards K. A randomized controlled trial of asthma self-management support comparing clinic-based nurses and in-home community health workers: the Seattle-King County Healthy Homes II Project. *Arch Pediatr Adolesc Med.* 2009;163(2):141-149.
39. Krieger J, Song L, Philby M. Community health worker home visits for adults with uncontrolled asthma: the HomeBASE Trial randomized clinical trial. *JAMA Intern Med.* 2015;175(1):109-117.
40. Krieger J, Collier C, Song L, Martin D. Linking community-based blood pressure measurement to clinical care: a randomized controlled trial of outreach and tracking by community health workers. *Am J Public Health.* 1999;89(6):856-861.
41. Lapham SC, Hall M, Skipper BJ. Homelessness and substance use among alcohol abusers following participation in project H&ART. *J Addict Dis.* 1995;14(4):41-55.
42. Nyamathi A, Flaskerud JH, Leake B, Dixon EL, Lu A. Evaluating the impact of peer, nurse case-managed, and standard HIV risk-reduction programs on psychosocial and health-promoting behavioral outcomes among homeless women. *Res Nurs Health.* 2001;24(5):410-422.
43. Lyles CR, Sarkar U, Patel U, et al. Real-world insights from launching remote peer-to-peer mentoring in a safety net healthcare delivery setting. *J Am Med Inform Assoc.* 2021;28(2):365-370.
44. Towfighi A, Cheng EM, Ayala-Rivera M, et al. Effect of a coordinated community and Chronic Care Model team intervention vs usual care on systolic blood pressure in patients with stroke or transient ischemic attack: the SUCCEED randomized clinical trial. *JAMA Netw Open.* 2021;4(2):e2036227.
45. Szilagyi PG, Schaffer S, Shone L, et al. Reducing geographic, racial, and ethnic disparities in childhood immunization rates by using reminder and recall interventions in urban primary care practices. *Pediatrics.* 2002;110(5):e58.
46. Gottlieb LM, Lindau ST, Peek ME. Why add "abolition" to the National Academies of Sciences, Engineering, and Medicine's social care framework? *AMA J Ethics.* 2022;24(3):E170-E180. doi:10.1001/amajethics.2022.170
47. Gayman M, Barragan J. Multiple perceived reasons for major discrimination and depression. *Soc Ment Health.* 2013;3:203-220.

48. Grollman EA. Multiple disadvantaged statuses and health: the role of multiple forms of discrimination. *J Health Soc Behav.* 2014;55:3-19.
49. Meyer IH, Schwartz S, Frost DM. Social patterning of stress and coping: does disadvantaged social statuses confer more stress and fewer coping resources? *Soc Sci Med.* 2008;67:368-379.
50. Haslanger S. Gender and social construction: Who? What? When? Where? How? In: May L, Delston J, eds. *Applied Ethics.* Routledge; 2017:299-306.
51. Lorber J. "Night to his day": The social construction of gender. *Paradoxes of Gender.* Yale University Press. Vol 1; 1994:1-8.
52. Organizing Committee for Assessing Meaningful Community Engagement in Health & Health Care Programs & Policies. Assessing meaningful community engagement: a conceptual model to advance health equity through transformed systems for health. *NAM Perspect.* 2022. doi:10.31478/202202c
53. NIH Funding Opportunity Announcement Number PAR-23-112. Addressing the impact of structural racism and discrimination on minority health and health disparities (R01 - clinical trial optional). Accessed on February 23, 2023. <https://grants.nih.gov/grants/guide/pa-files/par-23-112.html>
54. Cené CW, Buys E, Clark JW, et al. Better together: a descriptive analysis of a medical-legal partnership in western North Carolina. *N C Med J.* Forthcoming. 2023;83(5):8-381.
55. Tung EL, Gunter KE, Bergeron NQ, Lindau ST, Chin MH, Peek ME. Cross-sector collaboration in the high-poverty setting: qualitative results from a community-based diabetes intervention. *Health Serv Res.* 2018;53(5):3416-3436.
56. Pan American Health Organization. About health in all policies. Accessed July 10, 2023. https://www3.paho.org/hq/index.php?option=com_content&view=article&id=9360:2014-about-health-all-policies&Itemid=0&lang=en#gsc.tab=0
57. Green L, Ashton K, Bellis MA, Clemens T, Douglas M. 'Health in all policies' - a key driver for health and well-being in a post-COVID-19 pandemic world. *Int J Environ Res Public Health.* 2021;18(18):9468. doi:10.3390/ijerph18189468
58. Community Partnerships to Advance Science for Society (ComPASS). Program snapshot. Accessed March 23, 2023. <https://commonfund.nih.gov/compass>
59. Hamilton CM, Strader LC, Pratt JG, et al. The PhenX toolkit: get the most from your measures. *Am J Epidemiol.* 2011;174(3):253-260. doi:10.1093/aje/kwr193

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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