Integrating Medical and Social Care to Reduce Diabetes Inequities: Lessons from the Bridging the Gap Program

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J Gen Intern Med 38(Suppl 1):S1–S3
DOI: 10.1007/s11606-022-07977-5

In the United States, minoritized racial and ethnic groups and lower income adult populations consistently bear the disproportionate burden of diabetes-related morbidity and mortality.[1,2] While investigations to uncover the reasons for these disparities continue, evidence shows that social and environmental factors account for 50–60% of health outcomes.[1] These factors contribute to disparities in healthcare and diabetes outcomes, calling for programming and interventions at various levels of influence to reduce disparities, improve health outcomes, and achieve health equity.[1,2] While social determinants of health are neither positive nor negative, adverse social conditions, generally referred to and recognized as social risk factors, are consistently found to influence diabetes outcomes negatively.[3] Using the World Health Organization framework for social determinants of health as a guide, these adverse social conditions include both individual material circumstances such as food insecurity and housing instability, and the structural determinants of health that exist upstream of and antecedent to more intermediary social determinant factors.[4] Structural inequalities and structural racism result from power differences where discriminatory practices within institutions and systems reinforce the distribution of wealth and resources.[4,5] Thus, structural determinants perpetuate inequalities in health through differences in economic opportunities, education, or healthcare access.[4,5] Cross-sector collaborations focused on integrating medical and social care are critical to address structural determinants, shift to population health and value-based care, and revolutionize diabetes management and care.[1,2] However, evidence demonstrating the impact of social and medical integration remains limited and warrants increased attention.[6]

The Merck Foundation previously funded the *Alliance to Reduce Disparities in Diabetes* in which five grantees demonstrated that multi-level interventions to address the health system and community components of the Chronic Care Model could reduce disparities in diabetes care and outcomes.[7] Building upon that experience, the Merck Foundation created a successor program, *Bridging the Gap: Reducing Disparities in Diabetes Care*, that emphasized more strongly integrating medical and social care and developing sustainable financial models in collaboration with payers. *Bridging the Gap* funded eight urban, rural, and frontier teams, and the National Program Office based at the University of Chicago, which ran the initiative and provided technical assistance to the teams. This supplement of the *Journal of General Internal Medicine* (*JGIM*) includes 13 papers from teams that tell their stories, including the content and process of their innovations, outcomes and lessons learned, and experiences of patients, clinicians, staff, and organizations. A great strength of the program is the heterogeneity of the grantees. Each team integrated medical and social care with the goal of reducing inequities in diabetes care and outcomes. However, they varied considerably across factors such as geography, patient populations, community resources, payer environment, and market context. While general principles can guide the integration of medical and social care, each health care organization must tailor its specific solutions to its unique context. These quantitative and qualitative papers utilize diverse JGIM article formats to holistically tell their stories, including original research articles, innovations, perspectives, and patient and clinician narratives.

The Perspective by Gunter et al. provides an overview of the initiative, illustrative case examples for integrated medical and social care, and a description of future opportunities in three areas: (1) primary care transformation and workforce capacity, (2) addressing individual social needs and structural changes, and (3) payment reform. Wang et al. outlines how an all-payer global budget financing system creates powerful incentives to address social drivers of health and improve overall population health at the outpatient, Center for Clinical Resources of University of Pittsburgh Medical Center Western Maryland, that is located in Appalachian western Maryland. The center improved patient-reported outcomes, glycemic control, and hospital utilization for high-risk patients with diabetes. Saulsberry et al. interviewed patients with diabetes, essential staff, and leaders of community-based organizations affiliated with this western Maryland initiative. Key themes from the qualitative analysis were how team-based care

Published online March 2, 2023

promoted accountability across stakeholders, the importance of mission for aligning health care and community sectors, and how global payment models allowed flexible allocation of resources. Sherman et al. explored how philanthropy and policymakers can assist healthcare delivery organizations develop sustainable payment models. They outline four options: (1) create a sustainable financial model to help healthcare delivery organizations negotiate with payers; (2) develop a value proposition for internal stakeholders; (3) identify new ways to earn revenue through billing in existing payer relationships; and (4) leverage new funding opportunities created through favorable policy changes.

McGrath et al. elucidates the special challenges that frontier areas pose for reducing diabetes inequities in his Healing Arts essay focused on the experience of Clearwater Valley Health in Idaho. Tanumihardjo et al. describe how McGrath's Idaho healthcare delivery system integrated medical and social care through a population health team. Part of the Idaho intervention involved collaborating with food banks and pantries and embedding community health workers in food distribution sites to perform health screenings in persons who may be hard to reach. This intervention was associated with improved hemoglobin A1c (HbA1c) among less well-controlled patients with diabetes. Sommers et al. found that community health workers encountered high levels of interpersonal trust, but low institutional and generalized trust, with the clients they worked with coordinators of the food distribution sites. Thus, trust building at individual and organizational levels was essential. Besides the Idaho team, six other teams employed community health workers including through a collaboration between Marshall University and Mountain Comprehensive Health Corporation in rural Kentucky. Tanumihardjo et al. found their model to be associated with improvements in both glycemic control as well as patient-reported outcomes like confidence and self-efficacy. While a robust literature supports the role of community health workers in reducing health inequities, many health financing and reimbursement systems either do not pay for them or have regulatory language that makes it hard to access funding. To highlight this, Gunter et al. analyzes why few organizations accessed Medicaid reimbursement for community health workers in Minnesota, despite passage of a law in 2007 providing a funding mechanism.

Roth et al. studied the Providence Diabetes Collective Impact Initiative in three clinics in high-needs areas of Portland, Oregon. The initiative includes care pathways and outreach, diabetes self-management, screening for social drivers of health, and on-site Community Resource Desks that link patients to community services. Compared to patients at control clinics, patients at intervention clinics had an increase in diabetes education, screening for unmet social needs, and average number of virtual primary care visits. However, no differences were seen in HbA1c, blood pressure, or hospitalization. Tanumihardjo et al. describe a hospital-based, community teaching kitchen in the Providence health care system that integrates diabetes education, culinary medicine, and food assistance. Tanumihardjo and colleagues also provide a case example of how a community health collaborative in Trenton, New Jersey, facilitated change in both the health system and community to address medical and social needs such as food insecurity.

The Bridging the Gap Program and the articles in this supplement raise the question of how to engage the community authentically in the creation, evaluation, and dissemination of innovations to reduce inequities in care and outcomes. Community-engaged research and project approaches that share power with communities are increasingly thought to be critical for advancing health equity, but many organizations struggle to implement these principles in practice. For each team, serving patients and the community were priorities over academic evaluation. Yet, each team was highly innovative and had many valuable stories and lessons. Part of the solution was finding evaluators to partner with each team. JGIM was an excellent journal for this supplement, in part because it has a range of article types including original research articles, innovations, and narratives. It was critical to consider if there are elements of the academic review and dissemination process that inherently oppose authentic community involvement and voice. For example, the article from the immigrant patient cared for at La Clinica Del Pueblo, a federally qualified health center in Washington, D.C., is only the second patient narrative ever published in JGIM. During the review process, staff from the health center appropriately challenged critiques that would have taken away the patient's voice and put the paper in a context provided by the reviewer. In addition to elevating the patient's authentic voice, JGIM agreed to publish the paper in the patient's primary language Spanish as well as the English translation. Researchers, funders, and journals have much to consider if they truly value community voice and partnership to advance health equity.

This supplement adds to the evidence supporting transforming medical and social care for adults with diabetes to reduce disparities in diabetes care and outcomes and advance health equity. We expect this diverse set of papers to add to evidence on the importance of cross-sector collaborations to address the root causes of disparities, mitigate social needs, and develop financing and reimbursement systems to make these interventions sustainable.

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Declarations:

Disclosures: *Drs. Williams and Walker were supported by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) grants R21DK123720, K24DK093699, R01DK118038, and R01DK120861; the National Institute of Minority Health and Health Disparities (NIMHD) grant R01MD013826; and American Diabetes Association grant 1-19-JDF-075. Drs. Peek and Chin were supported by the Merck Foundation Bridging the Gap: Reducing Disparities in Diabetes Care National Program Office, and in part by the Chicago Center for Diabetes Translation Research (NIDDK P30 DK092949). Dr. Chin co-chairs the Centers for Medicare & Medicaid Services Health*

Care Payment Learning and Action Network Health Equity Advisory Team. Dr. Chin is a member of the Bristol-Myers Squibb Company Health Equity Advisory Board and Blue Cross Blue Shield Health Equity Advisory Panel.

Conflict of Interest: *There are no conflicts of interest.*

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