Integrating medical and social care to improve diabetes outcomes

Overview

The prevalence of diabetes in the United States continues to grow at alarming rates. More than 37.3 million people in the U.S. – 11% of the population – have diabetes.[i] It is the eighth-leading cause of death in the U.S., accounting for an estimated $327 billion in medical costs and lost work and wages.[ii] People with diabetes incur more than twice the average medical costs, and the disease takes a profound toll on physical, mental and emotional well-being.[ii,iii]

Inequities in care persist as a major challenge, disproportionately affecting people with diabetes who live in poverty, live in rural areas, have immigrated to the U.S., or belong to marginalized racial and ethnic groups.[iv,v]

In 2017, the Merck Foundation responded to this public health crisis by launching B*ridging the Gap: Reducing Disparities in Diabetes Care (Bridging the Gap)*.[1] This five-year, $16 million initiative was designed to improve access to high-quality diabetes care and reduce disparities in health outcomes among underserved populations living with diabetes. Eight health care and public health organizations from diverse communities across the country pioneered and evaluated new models that integrated medical and social care to better respond to patient needs.

Program Partners

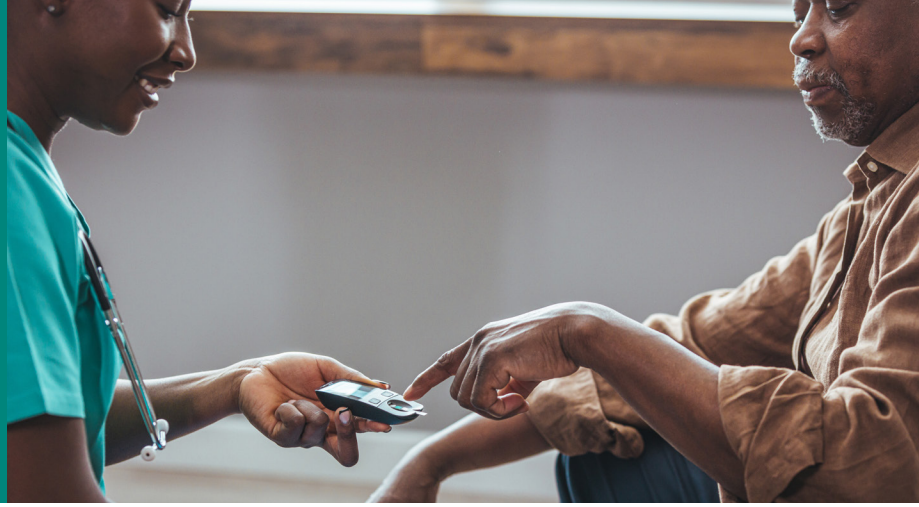
- ★ University of Chicago, National Program Office
- Alameda County Public Health Department, *Oakland, CA*
- La Clínica del Pueblo, *Washington, DC*
- Marshall University, *Huntington, WV*
- Minneapolis Health Department, *Minneapolis, MN*
- St. Mary's Health and Clearwater Valley Health, *Orofino, ID*
- Providence Health & Services, *Portland, OR*
- Trenton Health Team, *Trenton, NJ*
- The University of Pittsburgh Medical Center (UPMC) Western Maryland, *Cumberland, MD*

Bridging the Gap: Transforming Medical and Social Care for Diabetes - a series of articles about the initiative - was published in a supplement issue of the Journal of General Internal Medicine in March 2023.

[1]Bridging the Gap was built on the learnings from the Alliance to Reduce Disparities in Diabetes, a Merck Foundation initiative funded in 2009, the results of which can be accessed here: https://doi.org/10.1177/1524839914545784

MERCK Foundation

The inequitable burden of diabetes



Diabetes disproportionately affects certain racial and ethnic groups. Many more African Americans, Hispanics and Asians are diagnosed with the disease than people who are White.[i, v, vi] People from racial and ethnic minority backgrounds also face considerably more barriers to care. For example, they are more likely to be uninsured and report not having a primary care provider.[v,vii]

The disproportionate health burden is attributable primarily to social drivers of health—the conditions in which people are born, grow, live, work and age. Social drivers such as limited education, low income, unstable housing, language barriers, low social support, food insecurity and lack of health insurance predict higher rates of diabetes and worse long-term outcomes.[viii] These social drivers are not equally distributed in society; their prevalence is shaped by structural inequities such as racism.[ix]

Addressing the social drivers of health

Bridging the Gap was developed to respond to the social drivers of health and advance solutions that reduce disparities in diabetes care and improve health outcomes. It also aimed to establish the value of services that overcome barriers to care - such as patient navigation, community health workers (CHWs) and food prescriptions - but are often not reimbursed.

Eight organizations serving diverse populations and regions were selected to develop transformative diabetes programs for Bridging the Gap. From East Oakland, California to Huntington, West Virginia, across urban, rural and frontier settings, partnerships were forged between health care and non-medical entities in local communities to support multidisciplinary care teams, enhance care models and test innovative payment approaches.

The University of Chicago, as the National Program Office, led the initiative, providing technical assistance to partners, creating a rich learning collaborative for the grantees, and conducting a rigorous cross-site evaluation of Bridging the Gap's impact.

Lessons learned

Bridging the Gap programs served individuals from different geographic and socio-demographic contexts.The eight partners developed a breadth of innovative strategies to address the varied social drivers of health affecting diabetes care. Several common themes and lessons emerged.

Managing complex care requires holistic, team-based approaches that integrate both medical and social needs and are tailored to patients' unique circumstances. Individualized care builds trust between clinicians and patients and leads to better health outcomes.

Opportunity: Design and implement care models that address both patients' medical and social needs.

Addressing the lack of access to food, stable housing, medicine, transportation and other social drivers of health through a network of community partners reduces barriers to care and empowers patients to better manage their own health.

Opportunity: Identify the unmet social needs of patients and connect them with community partners that can address them.

Adjusting policy and payment systems to incentivize preventive care can reduce complications and improve both patient care and outcomes. Flexible reimbursement models help to sustain critical funding over the long term.

Opportunity: Develop new reimbursement and payment models to support integrated care in fiscally sustainable ways.

These innovative programs are paving the way forward for the future of diabetes care. We hope that sharing their stories of impact will inspire greater investment in addressing the social drivers of health for people living with diabetes and other chronic diseases so that all people have equitable access to high-quality care.

Advancing best practices in diabetes care

Supporting people who live with the physical and psychological challenges of diabetes is in every community's best interest.

Bridging the Gap highlights how recognizing and responding to the disparate social and environmental needs of patients makes a fundamental difference in their care and health outcomes. The ingenuity demonstrated by Bridging the Gap partners can be replicated by other organizations seeking novel pathways to improve the lives and health of people with diabetes.

Positive experiences with CHWs and peer mentors illustrate an evidence-based but underutilized strategy to engage patients and provide trusted guidance.[x,xi,xii] Multidisciplinary teams can play an important role in enhancing care and improving patient education and confidence. Partners' efforts to garner new sources of operating funds provide a blueprint for sustaining efforts over time.

These successes in diabetes care are already leading some partners to adapt their models to improve the lives of patients with other chronic conditions, including cardiovascular disease and hypertension.

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Bridging the Gap's hands-on, individualized and integrated care models suggest that the inequities in diabetes care can be addressed, assuring better health and well-being for all.

Partner profiles: Innovative solutions to address patient needs

Alameda County Public Health Department, Oakland, CA

The Alameda County Public Health Department partnered with Roots Community Health Center and Tiburcio Vasquez Health Center to address social drivers such as food insecurity, housing instability and the needs of returning citizens (e.g., formerly incarcerated). Roots expanded its team of health navigators to support its predominantly African American clients while Tiburcio Vasquez integrated multidisciplinary teams into its diabetes education program to assist its primarily Latino/a population. Over two years, Roots' patients received nine months of social services support, on average, and 70% saw improvements in their A1c levels (amount of glucose in the blood), with the average decrease equivalent to the effect of some diabetes medications.[xiii]

> *East Oakland has a huge need… a legacy of institutionalized racism, lots of formerly incarcerated individuals, lots of unhoused and marginally housed individuals. There are just so few services out there like Roots – that gets more Black men into care, but also offers good care there in the community where it's needed. Roots offers all these complementary services where it was so obvious that just offering medical services is not enough.*
>
> - Diabetes Care Manager, Roots

La Clínica del Pueblo, Washington, DC

La Clínica is a Federally Qualified Health Center that primarily serves Latino/a immigrants, who are often excluded from federally funded programs like Medicaid (health insurance) or the Supplemental Nutrition Assistance Program (food assistance). La Clínica used multidisciplinary teams of physicians, behavioral health therapists, care coordinators, health educators and medical interpreters to stratify patients by risk and tailor care to their unique medical and social circumstances.

La Clínica staff also screened patients for their social needs and navigated them to the appropriate resources. Community partners, such as legal aid and food distribution organizations, assisted with legal and immigration issues, housing insecurity, eviction, chronic disease self-management and access to healthy food.[xiv]

Part of this care transformation was bringing La Clínica staff together to feel like a team. Everyone started to think about what makes people struggle with diabetes and discuss the social drivers of health, versus approaching it as an individual dealing with one client who is sick.

- Chief of Programs and Community Services, La Clínica

Marshall University and Mountain Comprehensive Health Corporation, Huntington, WV

Through a network of Federally Qualified Health Centers in rural Appalachia, CHWs provided care management for people with diabetes facing medical and social barriers to care. Marshall University took on the task of securing Medicaid reimbursement for the CHWs' services through direct engagement with payers. Marshall University also supported Mountain Comprehensive Care Center in developing partnerships with a local farmers market collaborative that helped establish a Food Farmacy program in the clinic.

After the program was implemented, blood sugar levels among the subset of patients in central West Virginia who interacted with CHWs dropped significantly—A1c levels declined from 8.9% to 8.4% at six months and sustained improvement 18 months into the intervention.[xv,xvi] Positive patient outcomes, including better health and fewer emergency department and hospital visits, convinced The Health Plan and Aetna Better Health of West Virginia to partner with two Federally Qualified Health Centers to pilot an equitable payment model for CHW-based care.[xvii]

> *Partnership with insurers is really a very powerful thing, and I think that we're going to get to the point where we have sustainability of CHWs and models generated to support them. Since this has worked so well for diabetes, it makes you think that other high-risk categories might be open to this kind of approach. Childhood asthma, veteran suicide, recovery from addiction- any of those sorts of things that are high cost for insurers - we might be able to significantly impact through the use of peers.*
>
> - Evaluator, Marshall University

Minneapolis Health Department, Minneapolis, MN

The Minneapolis Health Department established partnerships with three Federally Qualified Health Centers that support predominantly Native American, Latino/a and African American populations in areas of the city with high rates of diabetes. This program reached more than one thousand patients and involved several elements, including population health management, patient outreach, enhanced diabetes education, engagement with CHWs and partnerships with community organizations to address patients' social needs. The program also reduced food insecurity through a collaboration with the Minnesota Food HelpLine, conducting grocery tours with CHWs, and providing cooking classes and vouchers for farmers' markets and local food co-ops.

Assisting patients with their medical and social needs brings them hope. When you have a disease that is out of control, you may become hopeless. Having a health care team that cares brings patients hope and is the bridge from hopelessness to hope.

- Chronic Conditions Care Manager, Southside Community Health Services

St. Mary's Health and Clearwater Valley Health, Orofino, ID

A health care delivery system serving older residents in rural Idaho, St. Mary's Health and Clearwater Valley Health approached the challenge of improving diabetes care and addressing social needs by creating a multidisciplinary population health team, which included physicians, behavioral therapists, dietitians, chronic care managers and CHWs. CHWs conducted home visits to alleviate additional barriers to care among the elderly and coordinated with the Idaho Food Bank to meet patients at local food distribution sites.

The program led to statistically significant improvements in cholesterol and diabetes control among its medically complex patients—a decrease in A1c levels from 7.9% to 7.6% and an 8.1 milligram per deciliter (mg/dl) reduction in the average "bad" LDL cholesterol 12 months after the program started. A1c levels continued to decline after 36 months.[xviii]

> *People know that part of our culture, particularly here, is to be as innovative as possible, particularly in rural health care. We're trying to come up with a different way of supporting unmet social needs.*
>
> - Chief Medical Officer, St. Mary's Health and Clearwater Valley Health

Providence Health & Services, Portland, OR

Providence developed the Diabetes Collective Impact Initiative to serve the medical, social and environmental needs of people with diabetes from low-income and underserved communities. Components of the initiative included multilingual diabetes self-management classes, routine social needs screening, transportation services and robust food and nutrition programs, including a community teaching kitchen.

Program participants also had access to an on-site community resource desk – developed in partnership with the local social service agency, Impact NW – where trained staff assisted patients with unmet social needs. As a result of these interventions, patients had more primary care visits, and received greater access to diabetes self-management education. More than 100,000 were also screened to determine whether they had social needs;[xix] 36% of those with social needs received a referral for support services.[xx]

Trenton Health Team, Trenton, NJ

Trenton Health Team (THT) developed the Capital City Diabetes Collaborative to improve health outcomes for people with diabetes, which included the Project Dulce diabetes peer education program and a multidisciplinary care management team. THT also developed partnerships with local community organizations to support patients' unmet needs, such as coordinating a local food stakeholders' group.

Nearly 90% of patients who were referred to services to address social and medical needs, such as food insecurity and insurance coverage, received the support they needed. Participants in the program were 18% more likely to achieve A1c levels below 9% and were 26% more likely to report following a healthy eating plan four or more days per week.[xxi]

The University of Pittsburgh Medical Center (UPMC) Western Maryland, Cumberland, MD

UPMC Western Maryland Center for Clinical Resources supplemented and expanded team-based care for people with diabetes, assigning each patient a dedicated diabetes care coordinator. Staff also fostered partnerships to support the Food Farmacy program and Associated Charities of Cumberland Inc., a local service agency that provides support for material needs and housing. The state's financing model, which promotes payment based on outcomes rather volume, contributed to the program's success.

Participants in the program had better diabetes control, with A1c levels decreasing from 10.0% to 8.8% after six months and from 10.0% to 8.7% at 12 months. Statistically significant improvements in A1C were sustained 30 months after patients enrolled in the program. Emergency department visits and hospitalizations also showed statistically significant declines over 12 months, and patients self-reported improvements in 18 of 22 measures, including confidence, quality of life and experience with health care.[xxii]

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MERCK Foundation