

# Working With Communities: Meeting the health needs of those living in vulnerable communities when primary health care and universal health coverage are not available

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## Abstract

**Background:** The health care delivery model in the United States does not work; it perpetuates unequal access to care, favors treatment over prevention, and contributes to persistent health disparities and lack of insurance. The historical lack of support in the United States for primary health care, universal health coverage, population health, addressing the social determinants of health, and community empowerment, creates opportunities for community health scientists to develop innovative solutions for addressing community health needs. **Methods:** We developed a model community health science approach combining community-oriented primary care (COPC), community-based participatory research (CBPR), asset-based community development, and service learning principles. The approach defines health as a social outcome, resulting from a combination of clinical science, collective responsibility, and informed social action. **Results:** From 2000-2020, we established partnerships with community organizations to reduce the risk of chronic disease in vulnerable minority communities. Our programs have provided structured community health science training for hundreds of physicians and other health care workers in training. **Conclusion:** As the U.S. begins to seek solutions to chronic health disparities and health inequities, community health science provides useful lessons in how to engage communities to address the deficits of the current system. Perhaps the greatest error that U.S. health care systems could make in trying to better address population health and the social determinants of health, would be ignoring the important community initiatives already underway in most local communities. Building partnerships based on local resources and ongoing social determinants of health initiatives is the key for medicine to meaningfully engage communities for reducing health disparities. This has been the greatest lesson we have learned during the past two decades, has provided the foundation for our community health science approach, and accounts for whatever success we have achieved.

## ABSTRACT

*Background:* The health care delivery model in the United States does not work; it perpetuates unequal access to care, favors treatment over prevention, and contributes to persistent health disparities and lack of insurance. The vast majority of those who suffer from preventable diseases and health disparities, and who are at greatest risk of not having insurance, are low-income minorities (Native Americans, Hispanics, and African Americans) who live in high risk and vulnerable communities. The historical lack of support in the United States for primary health care, universal health coverage, population health, addressing the social determinants of health, and community empowerment, creates opportunities for community health scientists to develop innovative solutions for addressing community health needs.

*Methods:* We developed a model community health science approach combining community-oriented primary care (COPC), community-based participatory research (CBPR), asset-based community development, and service learning principles. During the past two decades, our community health science team has collaborated

community members, leaders, and organizations, to address the health needs of vulnerable patients. The approach defines health as a social outcome, resulting from a combination of clinical science, collective responsibility, and informed social action.

*Results:* From 2000-2020, we established partnerships with community organizations and worked together to reduce the risk of chronic disease in a vulnerable minority community by stimulating lifestyle changes, increasing healthy behaviors and health knowledge, and improving care seeking and patient self-management. Our programs have also provided structured community health science training in high-risk communities for hundreds of physicians and other health care workers in training.

*Conclusion:* Our community health science approach assumes that the factors contributing to health can only be addressed by working directly with and in affected communities to co-develop health care solutions across the broad range of causal factors. As the U.S. begins to seek solutions to chronic health disparities and health inequities, community health science provides useful lessons in how to engage communities to address the deficits of the current system. Perhaps the greatest error that U.S. health care systems could make in trying to better address population health and the social determinants of health, would be ignoring the important community initiatives already underway in most local communities. Building partnerships based on local resources and ongoing social determinants of health initiatives is the key for medicine to meaningfully engage communities for reducing health disparities. This has been the greatest lesson we have learned during the past two decades, has provided the foundation for our community health science approach, and accounts for whatever success we have achieved.

## Introduction

*“The present health care delivery model in the United States does not work; it perpetuates unequal access to care, favors treatment over prevention, and contributes to persistent health disparities and lack of insurance. The vast majority of those who suffer from preventable diseases and health disparities, and who are at greatest risk of not having insurance, are minorities (Native Americans, Hispanics, and African Americans) and those of lower socioeconomic status. Because the nation’s poor are most affected by built-in inequities in the health care system and because they have little political power, policy makers have been able to ignore their responsibility to this group.”<sup>1</sup>*

When we wrote these words more than a decade ago, we had several motives. First, we wanted to call attention to a health care system that through its complacency and silence was providing tacit support to a system of care that was inequitable and ineffective in meeting the needs of minorities and the poor. Second, we were advocating for more emphasis in primary care – and especially the specialty of family medicine – on addressing the social determinants of health as the upstream causes of disease. And, third, we proposed community health science as the vehicle for addressing the needs of low-income patients and reducing health disparities by linking together clinical practice, public health, and community organizations.

The motivation for our research, training programs, and community-engaged practice leading up to and since the publication of the article, was to remediate a system of care in the United States where primary care is not available to many and primary health care is not practiced.<sup>2</sup> Primary Care (PC) is familiar to most Americans and refers to the care continuity care directed at the health needs of individuals by physicians and other health care workers. It includes diagnosis and treatment of acute and chronic illnesses, health promotion and disease prevention, and patient education and counseling. Primary Health Care (PHC) is a much broader concept and consists of three components: 1) meeting people’s health needs throughout their lives; 2) addressing broader determinants of health through multisectoral policy and action; and, 3) empowering individuals, families and communities to take charge of their own health.<sup>3-6</sup> By providing care *in* the community as well as care *through* the community, PHC addresses not only individual and family health needs, but also the broader issue of public health and the needs of populations.

Stronger integration between primary care and public health with a focus on population health has enjoyed limited and sporadic periods of popularity and success in the United States during the past 50 years.<sup>7</sup> The Community-Oriented Primary Care (COPC) model introduced in the 1970’s provided a workable framework

for integrating public health into primary care practice, and in the late 1990's accountable care organizations brought renewed attention to the role of medical systems in improving population health.<sup>7-10</sup> However, the need to address the social determinants of population health in the U.S. has only very recently emerged as a topic of importance in discussions about reforming U.S. health care.<sup>11,12</sup> And while primary care and public health organizations have long recognized the potential benefits of integration, significant longstanding barriers will need to be overcome first before any meaningful progress can be achieved.<sup>13</sup>

The historical lack of support in the U.S. for population health, medicine and public health integration, addressing the social determinants of health, and community empowerment, has created a situation where practitioners and researchers work independently in their local communities to address these components. This often leads to creating “non-system” approaches to meeting the health needs of vulnerable populations in local communities.<sup>4,14,15</sup> The authors have worked together as a team during the past 20 years to create innovative solutions to community health problems by combining community-based participatory research (CBPR), community-based service learning training experiences, and community-based practice. The purpose of the present manuscript is to describe our community health science approach and the ways we have worked in partnership with community members to improve health outcomes. Our efforts have been focused in two areas: 1) building community health capacity for testing program interventions reducing and eliminating risk factors for chronic disease, and, 2) training the next generation of physicians and other health professionals how to address the health needs of vulnerable patients when working in a system that eschews systemic approaches to addressing the social drivers of health and disease.

### The Community Health Science Approach

During the past 30 years we have developed and directed more than six different academic units addressing health disparities located both inside and outside the medical center. The community health science approach we developed is based on these experiences and incorporates principles derived from community-based participatory research, asset-based community development, and community-oriented primary care.<sup>8,16-19</sup> The common element these approaches share is their reliance on co-creating solutions through partnerships between community members and leaders, local organizations, and health care organizations. Our approach also draws on Dr. Kurt W. Deuschle's community medicine approach, which combines clinical medicine, population health, and social science.<sup>1</sup> Therefore, our community health science approach defines health as a social outcome resulting from systematically combining clinical science, collective responsibility, and informed social action.

We have described the community health science framework in detail elsewhere.<sup>20</sup> Essentially, the model posits that for any community health issue – whether chronic, acute, or infectious diseases; or social determinants such violence, food scarcity, or housing instability – health promotion and disease prevention can only be effective when clinical treatment, population health, and community organization priorities and actions are aligned.<sup>21</sup> Consistent with asset-based community development, the approach acknowledges that in most communities, resources exist and activities are already underway for promoting health on important community issues.<sup>22</sup> Thus, the role of community health science practitioners is to collaborate with those in the community who are already working on any health issue at the clinical, population, or community organization level, facilitate communication and coordination across the different levels, and contribute to partnership-building for creating sustainable solutions for population health improvement.<sup>20</sup>

(Figure 1 about here)

### The Importance of Relationships and Collaboration

Strong and trusting relationships with community partners are the foundation for effectively improving community health outcomes.<sup>23,24</sup> These relationships can only be developed by inviting people to your table (the health center) and going to their table (the community), working also with community leaders inside and outside of health services organizations while demonstrating genuine concern for their health and wellbeing.<sup>16,25</sup> The hundreds of organizations we have worked with during the past 20 years include libraries, faith organizations, neighborhood associations, local government, cultural organizations, schools,

colleges and universities, community clinics, recreation centers, community centers, non-profit organizations, hospitals, businesses, and civic organizations, among others.<sup>26-28</sup> The organizations all address one or more aspects of the social determinants of health, including education, access to health care, employment and job stability, housing, social capital, and/or food security.<sup>29-31</sup>

The activities reported here were focused in the South Dallas community of Dallas, Texas. In 2005, South Dallas had a population of 35,000 residents, 68% were African-American and 27% Latino, 60% of households made less than \$25 000 annually, 80% of births were to single female-headed households, 52% had less than a high school education, and 57% lacked health insurance. In South Dallas, death rates from stroke and heart disease were more than double the county rates, and premature mortality was extremely high - 45% of deaths occurring among residents aged 65 years or less.<sup>32</sup> The vast majority of individuals were renters working in low-wage low-skill service occupations, and crime rates in the area were as much as two to three times higher than in most other parts of the city.

Our location in South Dallas was by invitation resulting from a chance encounter at a community meeting. In 2000, one of the authors (MJD) expressed the opinion during a public forum that the priorities of community residents deserved equal or more weight than governmental priorities when addressing community development needs in low-income areas. Although this opinion ran contrary to the preference of the local government, the opinion was embraced by community leaders and based on the science of asset based community development.<sup>22</sup> Based on these comments, the Executive Director of the SouthFair Community Development Corporation (CDC), invited the author to participate in the South Dallas Pastor's Weed and Seed Coalition (Pastor's Coalition). This group was leading the U.S. Justice Department's inner-city reclamation program, and the relationships developed with the eighteen African-American faith leaders in this group became the foundation of our 20 year collaboration.<sup>33</sup>

We also developed relationships with medical teams in other parts of the world – most notably Mexico in the early 2000's - in order to share information and resources for better managing the health needs of impoverished patients when resources are scarce. At that time, Mexico was spending 5.6% of its GDP on health care compared to about 15% in the U.S., but both systems were facing similar challenges in terms of health care access inequities between rich and poor, concerns over quality, rising costs, and limited resources.<sup>34-36</sup> To address these challenges, Mexico (unlike the U.S) developed a National Health Program designed to diminish inequalities, ensure fair financing, and improve responsiveness and health status. Mexico's close proximity to Texas allowed us to develop a relationship with the government of Chihuahua, Mexico, and the leaders of the Programa de Desarrollo Humano Oportunidades (Oportunidades) and we adapted the Oportunidades approach for our use in South Dallas.<sup>37,38</sup> We have provided a more extensive description elsewhere of the Oportunidades approach and how we adapted it to the South Dallas community.<sup>20</sup>

#### Health Promotion Interventions and Training Program Platforms

In 2000, we developed two projects that were subsequently funded in 2001 and became the foundation of our activities for two decades. The first was a project with the Dallas Academy of Medicine - a component of the Dallas County Medical Society – which was beginning the initial stages of developing a system of care for the uninsured “working poor” in the City of Dallas, Texas. The project eventually became Project Access Dallas (PAD), and provided our team the opportunity to develop an expansive health promotion platform in South Dallas. The second was funded by the U.S. Health Resources and Services Administration, for creating the Community Health Fellowship Program (CHFP) for medical students. The CHFP was designed to place medical students in community organizations to complete community-mentored service-learning research projects for improving health in ways identified by the community organizations. *These two programs illustrate the primary strategy of the community health science approach – developing and sustaining activities beyond the academic health center designed to advocate for and actively support community organizations addressing the social determinants of health, rather than merely extending health center programming out into the community.* This approach engages the AHC as one partner among many in sustainable community change efforts, rather than just building more AHC capacity with little or no regard for existing community initiatives.

## *Health Promotion Interventions - Reducing Emergency Room Use and Cost Among the Uninsured*

Emergency departments (ED) in the U.S. are a vital source of care for those without insurance who generally lack a source of primary care, since they are required by law to treat patients regardless of their ability to pay.<sup>39,40</sup> Care delivered through the ED is frequently for non-urgent problems, is substantially more costly than comparable care delivered in the primary care setting, and can produce significant financial charges for the uninsured and hospitals.<sup>41-43</sup> Our team worked with a group of collaborators to improve access to continuity and preventive care for the uninsured, reduce ED utilization and costs, provide better chronic disease management, reduce health disparities, and increase quality of life.<sup>44-46</sup> Project Access Dallas (PAD) partners included faith-based organizations, government agencies and social service organizations, hospitals and the local medical society, several universities and a medical school. It was a local community system that provided access to existing nonprofit community health clinics, volunteer primary and specialty care physicians, and local hospitals and pharmacies.<sup>47</sup>

The core of the PAD program was a Community Care Coordination system (Care Coordination) using community health workers (CHWs) to provide culturally competent case management when patients encounter social and economic barriers while trying to access and navigate health-related services. The CHWs were recruited from the local community and received basic training in social services delivery, health care system logistics, preventive care, and understanding physical and mental health. Their role was to coordinate referrals and access to care for patients, and provide support services and referral for social determinants of health needs, translation services for non-English speakers, health education, home visits, appointment compliance reminders, and encouragement to follow health prescriptions.

Two key studies examined the effectiveness of the PAD program from the perspective of patients using the system and the effect on reducing costs in the local hospital system. In the first, patients were surveyed to determine whether and how the CHWs effected their health and care delivery. Findings indicated that the PAD Community Care Coordination helped patients understand more about their health and how to navigate a complex health care system, helped patients learn how to independently manage their chronic health issues through self-care, guided patients efficiently to appropriate care services, and provided emotional support.<sup>48</sup> The second study indicated that the PAD system significantly reduced emergency department utilization and related hospital costs among patients enrolled in the PAD system.<sup>47,48</sup> PAD patients had significantly fewer ED visits and hospital days one year following their enrollment when compared with patients not enrolled in PAD, and their direct and indirect hospital costs were 60% less and 50% less, respectively.<sup>47</sup>

### *Reducing Heart Disease Risk*

Based on the lessons learned from PAD, and the partnerships with the Pastor's Coalition and the Oportunidades Team in Mexico, we worked with our community collaborators to develop an approach for reducing heart disease risk in the South Dallas community. The South Dallas community was almost 70% African-American. Deaths from coronary heart disease (CHD) and stroke are significantly higher among African-Americans compared with other race groups. Greater percentages of Black women (37.9%) than White women (19.4%) and Black men (61.5%) compared with White men (41.5%) die from CHD before age 75. Similarly, death rates from stroke before age 75 are substantially higher among Black women (39.0%) than White women (17.3%) and among Black men (60.7%) compared with White men (31.1%).<sup>49</sup> African-American adults have the highest rates of CVD mortality and prevalence of uncontrolled cardiovascular risk factors.<sup>50</sup> Death rates from heart disease and stroke were 2-3 times higher in South Dallas when compared to other parts of the city.<sup>32</sup>

We obtained funding from the National Heart, Lung, and Blood Institute (NHLBI) of the National Institutes of Health (NIH) to test a community-based lifestyle intervention program, since modest but sustained changes in physical inactivity and nutrition can reduce CVD risk.<sup>50,51</sup> Our program linked together the health program activities of hospital-based planners, health center providers, professional health educators, community health workers (CHWs), and leaders in local African-American congregations.<sup>52</sup> The African-American church is an important and influential community partner; it is the most important social institution in

many African-American communities, plays an important social role linking the community to the larger society, is held in the highest esteem by most African-Americans, and has a long history of engaging in community-based health initiatives.<sup>53-55</sup>

The core of our approach was to train CHWs in the churches, by expanding and adapting the PAD training program to focus more on CVD prevention, and then systematically connecting the CHWs to the medical community and to other community-based organizations addressing the social determinants of health. The objective was to develop the supportive environments needed to produce lasting lifestyle changes in the community-based setting.<sup>56</sup> Outcomes have been reported in detail elsewhere and demonstrated improvement in eating behavior but not physical activity.<sup>20,57,58</sup> However, when we compared program participants with a general sample of African-American adults from Dallas Heart Study on cardiovascular risk factors (CVRFs), they had significantly higher rates of treatment and control of multiple CVD risk factors including treated hyperlipidemia, controlled diabetes, controlled hypertension, more physically active, and less likely to smoke.<sup>49,59</sup>

### *Testing the Diabetes Prevention Program (DPP) on Reducing Weight (Heather Paper)*

Building on the relationships and progress in reducing heart disease risk, our team continued to focus on reducing chronic disease risk by focusing more on weight loss. With funding from the NIH National Institute of Minority Health and Health Disparities (NIMHD), we modified our approach by testing the Diabetes Prevention Program (DPP) in the congregational setting. The DPP was a well-known program with global reach, that is successful improving diet, increasing physical activity, and reducing weight in order to lower chronic disease risk.<sup>60</sup> Our programs and a large body of research demonstrate that African American women have disproportionately higher rates of obesity, prediabetes, type 2 diabetes, and cardiovascular disease compared to White women.<sup>61</sup> African American women tend to have less success than others in lifestyle interventions and DPP translations in African Americans have been suboptimal.<sup>62-65</sup>

We continued using church-based community health workers to co-deliver and support the program elements in the congregations. Consistent with the findings from our heart disease risk reduction program, we combined faith-based components - including active church leader support - into the standard DPP curriculum. Participants in the program who were followed for 10 months had significant improvements in weight loss, health behaviors, and biometrics.<sup>66</sup> The study is very important for several reasons. It demonstrated that participants in the faith-based adaption of the DPP who received at least 15 sessions nearly reached the DPP's original goal of 7% weight loss and met the CDC's goal of 5% weight loss. Thus, a faith-based version of the DPP has the potential to help African American women reach 5% weight loss in a community-setting outside of the AHC. Further, the program demonstrated that female African-American congregation members can successfully deliver the DPP providing a potential pathway for increasing reach and adoption into high-risk communities.<sup>66</sup>

### *Training Platforms*

As of 2015, 57 million people in the United States live in medically underserved areas (MUA), or areas "having too few primary care providers, high infant mortality, high poverty, or a high elderly population." While the number of MUAs in the U.S. is increasing, the number of primary care physicians willing to work in these underserved areas is decreasing.<sup>67</sup> Although many reasons account for the paucity of physicians practicing in MUA's, a primary factor is an approach to medical education that does not embrace a wider understanding of the role of medicine in promoting community health, addressing the needs of populations, or the importance of the social determinants of health.

Beginning in 2001, we created innovative elective service-learning and mentored community based participatory research (CBPR) education programs and experiences, initially funded through grants and eventually institutionalized at UT Southwestern Medical Center at Dallas. The benefits of community-based service learning experiences for medical students include increasing knowledge of diseases prevalent in the community around them and enhanced ability to develop clinical practice skills in community-based settings. Furthermore, students are better able to address health disparities through service learning in impoverished areas

and are able to cultivate essential citizenship skills that allow them to be adept at spearheading causes for medical justice in community and global health.<sup>68</sup>

Our training programs were designed to provide medical students and residents with the skills needed to work together with communities to reduce the disproportionate burden of chronic disease, and co-develop appropriate and effective models of health improvement. The training covers assessing the health needs of a specific population, implementing and evaluating interventions to improve the health of that population, and providing care for individual patients in the context of the culture, health status, and health needs of the population. We prepare trainees in community-oriented primary care, emphasize understanding and addressing population-based health and interdisciplinary teamwork. These structured learning programs incorporate service learning activities, community health interventions and scholarship under mentorship and guidance from faculty members and community leaders familiar with the social determinants of health, and include the following:

**Community Health Fellowship Program (CHFP):** The Community Health Fellowship Program (CHFP) introduces medical students to community based and clinical research during the summer months between their first and second year. A didactic curriculum introduces students early in their training to population health, social determinants of health, health disparities, and community based participatory research (CBPR). Community organizations in low-income areas addressing the needs of underserved communities, submit their health improvement needs to program faculty, researchable projects are developed, and brief proposals are presented to students. Students then select a specific project of interest and collaborate with the community organization to complete a mentored project to improve some aspect of the social determinants of health. Community partner organizations include the public health department, faith-based organizations, hospitals, local nonprofit organizations, social service organizations, schools, and free or reduced cost community clinics.<sup>69,70</sup>

**Community Action Research Track (CART):** after developing the CHFP program in 2001, we identified a need for a more longitudinal experience directed at community health improvement. Using the CHFP as the foundational experience, we collaborated with our community partners to secure a training grant from the U.S. Health and Resources Services Administration to create a four-year, longitudinal experience for medical students that includes instruction in public health and community-based participatory research (CBPR), annual service-learning experiences in the community, and completing a community health elective in the fourth year of medical school. The lectures and experiential training focus on population medicine, health promotion and disease prevention, and social determinants of health. The program focus on community-based participatory research (CBPR) and service-learning train medical students how to provide patient care from a population perspective while partnering with community organizations to determine how to best meet their needs by building on their strengths and integrating knowledge to meet shared goals.<sup>71</sup>

**Community Action Research Track (CARE):** The team also created a training program in a family practice residency program with additional support from the U.S. Health Services and Resources Administration. Although family physicians are ideal candidates to improve access and reduce health care disparities for individuals, many lack the knowledge and skills to effectively impact community health.<sup>72</sup> We created a training model designed for family medicine residents in community action research to equip them with the knowledge, skills, and attitudes to care for the underserved and reduce health disparities throughout the City of Dallas, and stimulate their interest in practicing in community-based underserved settings after graduation.<sup>73,74</sup>

Although many of the training programs we created during the past 20 years were optional and elective, they have been extremely popular among medical students and have had a profound effect on changing the culture of UT Southwestern Medical School and increasing the number and depth of community relationships. Medical students can now complete for credit, a 4-week community medicine elective or participate in a 12-week advanced learning experience completing a community health project with a community partner. The Albert Schweitzer Fellowship Program has been created in partnership with a local university where fellows receive mentorship, leadership training, and complete a long-term project with the underserved in their

community. Students can also participate in Student Run Free Clinics (SRFCs) where they engage with the community in special initiatives. And, the cumulative experiences provided through combined community-engaged programs and research experiences, as of 2018 allows interested medical students to graduate with MD with Distinction in Community Health. These physicians are equipped to assume leadership roles for improving populations health, through engaging medicine in partnerships with others throughout the community who are addressing the social determinants of health.

### Concluding Comments and Discussion

From 2000-2020, our team of health care professors, researchers, clinicians, social scientists, and community members, developed and tested means for improving health outcomes and providing training in mostly low-income, underserved, minority communities. Our approach combined community-based participatory research (CBPR), asset-based community development, social determinants of health, and community-based primary care (COPC) principles. Our model community health science program combined clinical practice, population health, and community organization components, with the goal of promoting health equity and reducing health disparities. We also developed means for training the next generation of physicians in this approach. In the U.S., university faculty members who are motivated to offer experiential, cross-sectoral, and interprofessional educational opportunities with community partners to their students confront significant barriers to acquiring the training necessary to provide these opportunities. There are few faculty development opportunities for obtaining the relevant competencies and skills, and few career pathways and rewards from academic leadership. Our approach has been to integrate training into medical student and resident curriculum from the outset, as a means for overcoming these barriers.<sup>75-78</sup>

Much of our work was and continues to be developed in response to the deficiencies of the American health care system, which eschews primary health care and universal health care. The U.S. health care system falls far short of the World Health Organization standards for a well-functioning health care system and is often considered a non-system of health care.<sup>14,79</sup> Despite spending more per capita on health care than any other developed country, it consistently ranks last in overall performance, access to quality care, administrative efficiency, health equity, and health care outcomes.<sup>80</sup> During the last two decades, little has changed regarding the U.S. approach to reducing health disparities or initiating the types of reforms needed to produce a more equitable system of care. Research consistently reveals significant differences in chronic disease prevalence, levels of health and wellbeing, access to quality care, average length of life, and rates of uninsurance and untreated disease based on race, ethnicity, and income.<sup>81-84</sup> As Donald M. Berwick, President Emeritus of the Institute for Healthcare Improvement observed recently, except for a few clinical preventive services, most hospitals and physician offices continue to be “repair shops,” trying to correct the damage caused by the upstream social determinants of health.<sup>85</sup>

Our approach of advocating for and supporting community organizations addressing the determinants of health and training the next generation of physicians to understand the upstream causes of health, is only now becoming understood in more mainstream areas of medicine.<sup>86</sup> A consensus is evolving in many parts of medicine that we must take action to reduce health disparities by addressing the full range of health determinants.<sup>2,87</sup> Researchers and clinicians in the U.S. are beginning to understand that living in conditions of poverty creates chronic disease, and that minorities are at greatest risk since they are disproportionately represented in low-SES communities.<sup>88-91</sup> Poverty also helps explain why research during the past 20 years focused on merely increasing access to health care has not been successful, since health disparities result from the conditions faced by residents in low-SES communities.<sup>92</sup>

Ten years ago appeals for medicine to more thoroughly engage the community in order to reduce inequities were often met with puzzled looks or indifference. However, today the evidence supporting the need to reform health care in the United States is overwhelming; most in the health professions recognize that the status quo is inequitable and does little to curb epidemic levels of persistent chronic disease, especially among those living in poverty.<sup>20</sup> Survey data indicate that hospital staff believe that clinical and administrative leaders are becoming more committed to systematically addressing patients’ social needs as part of clinical care, and some hospitals are beginning to partner with community organizations to address other health-related



needs. However, while these well-intentioned efforts no doubt reflect movement in the right direction, these small steps are by no means universal across health care systems and very little information exists about their effectiveness.<sup>86</sup>

Although we presented mostly our community-health related activities in the present paper, the success of these activities has been promoted and facilitated through our many longstanding partnerships with community leaders in housing, education, food security, and economic stability.<sup>20</sup> Our approach assumes that the factors contributing to health can only be addressed by working directly with and in affected communities to co-develop health care solutions across the broad range of causal factors. Perhaps the greatest error that U.S. health care systems could make in trying to better address population health and the social determinants of health, would be ignoring the important community initiatives that are already underway in most local communities. Understanding the value of combining the resources and expertise of health professionals and community leaders been the greatest lesson of our approach, has provided the foundation for our community health science approach, and accounts for whatever success we have achieved during these past two decades.

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