Early Lessons From An Initiative On Chicago's South Side To Reduce Disparities In Diabetes Care And Outcomes


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Early Lessons From An Initiative On Chicago’s South Side To Reduce Disparities In Diabetes Care And Outcomes

ABSTRACT Interventions to improve health outcomes among patients with diabetes, especially racial or ethnic minorities, must address the multiple factors that make this disease so pernicious. We describe an intervention on the South Side of Chicago—a largely low-income, African American community—that integrates the strengths of health systems, patients, and communities to reduce disparities in diabetes care and outcomes. We report preliminary findings, such as improved diabetes care and diabetes control, and we discuss lessons learned to date. Our initiative neatly aligns with, and can inform the implementation of, the accountable care organization—a delivery system reform in which groups of providers take responsibility for improving the health of a defined population.

Racial and ethnic disparities in diabetes care and outcomes arise from multiple causes. These include differential access to high-quality health care, healthy food, and opportunities for safe recreation; cultural traditions regarding cooking; beliefs about disease and self-management; distrust of medical care providers; and socioeconomic status. Consequently, the solution must be multifacatorial. Improving patients’ knowledge and increasing their motivation to make healthy lifestyle changes will have minimal impact if their limited access to healthy food and physical activity is not simultaneously addressed.

To date, few interventions have taken a multifaceted approach to improving outcomes among African Americans with diabetes. Traditionally, health care interventions have not taken advantage of community-based programs. Nor have quality improvement efforts typically included a focus on reducing health disparities, which has probably diminished the benefits of prior efforts to reduce health disparities among racial or ethnic minorities.

Fortunately, current trends in health policy and practice are encouraging greater interaction and collaboration among health care providers and communities. One driver of this collaboration is the creation of accountable care organizations, as authorized under the Affordable Care Act of 2010. Accountable care organizations are likely to have financial incentives to take responsibility for broad health care outcomes and costs for a defined population. Thus, accountable care organizations are potentially motivated to prioritize evidence-based prevention strategies that build on community resources and create a continuum of care from community settings to health care systems.

Racial or ethnic minorities are disproportionately represented among high-risk patients with complex medical conditions. Thus, accountable care organizations have the potential to improve minority health and reduce health disparities. Two recent reports from the Department of Health and Human Services—A Nation Free of Disparities in Health and Health Care and National Strategy for Quality Improvement in Health Care—recommend that efforts to reduce disparities involve both health care systems and community-based organizations. Important regional
strategies to improve health care quality, such as the Robert Wood Johnson Foundation’s Aligning Forces for Quality initiative and the Department of Health and Human Services’ Chartered Value Exchanges, also encourage health care and community partnerships. Policies and programs such as these hold great promise. Yet, to date, there are limited real-world examples of approaches that combine quality improvement efforts, culturally tailored interventions, and community partnerships to reduce disparities.

**South Side Diabetes Initiative**

We believe that such a multifactorial approach offers the best chance to address the multiple causes of disparities in diabetes care and outcomes. Therefore, we focused our initiative on the South Side of Chicago, a predominantly working-class African American community with sizable disparities in the prevalence of, and attention to, diabetes. For example, the prevalence of diabetes on the South Side is 19.3 percent, compared with a national prevalence of 10.7 percent and an average prevalence in Chicago of approximately 7 percent. In Chicago overall, neighborhoods that are primarily African American have five times the rate of diabetes-related leg amputations as primarily white neighborhoods. There are also other racial or ethnic disparities in diabetes care, such as the proportion of African Americans and Latinos receiving eye examinations and influenza vaccinations, compared to non-Hispanic whites.

Chicago’s South Side faces many challenges, including a relative dearth of outlets selling a broad range of healthy food, as well as crime and safety issues. But it also has many community strengths, such as community-based organizations, whose capacities can be harnessed in addressing diabetes outcomes.

In 2009 we developed a collaborative, community-based intervention that employed a multifaceted, integrated approach to address many of the root causes of health disparities. Now in its third year, the intervention consists of efforts to achieve system-level quality improvement within six health centers, four of which are federally qualified health centers and two of which are academic clinics affiliated with the University of Chicago; culturally tailored patient education; provider communication training; and community partnerships that support diabetes self-care at home. To assess the impact of the intervention, we are tracking key intermediate health outcomes—for example, the control of glucose, blood pressure, and cholesterol—that are associated with diabetes complications such as leg amputations, renal failure, and heart attacks.

In this article we describe our intervention in detail, report preliminary findings (primarily process measures), and discuss early lessons learned. Our work may inform the planning and development of accountable care organizations and other organizations that seek to integrate health care and community approaches with the goal of improving health and reducing disparities.

**The Intervention**

Our intervention contains four overlapping core components reflecting key elements of the MacColl Institute’s Chronic Care Model. This model identifies patients, practice teams, the community, and health systems as four necessary elements in the successful management of chronic diseases such as diabetes (Exhibit 1). Six health centers are part of the intervention (Exhibit 2). Researchers at the University of Chicago received grant funding from the Merck Company Foundation’s Alliance to Reduce Disparities in Diabetes and the National Institutes of Health to implement and evaluate the intervention. The research and implementation team includes faculty and staff members with expertise in quality improvement, behavioral change, community outreach, patient education, and research methods.

**QUALITY IMPROVEMENT COLLABORATIVE**

The first of the four intervention components is a quality improvement collaborative (Exhibit 1). Such collaborative undertakings typically bring together staff members from different health care sites to learn better care techniques and share best practices. They have been shown to improve diabetes care in safety-net clinics.

Each of the six health centers formed a quality improvement team of clinicians, clerical staff members, and leaders. A project coach from the research and implementation team provided basic quality improvement training such as how to map the process of diabetes care at each center. Initial projects used the “plan, do, study, act” methodology—designed to support rapid cycles of change—to implement small-scale projects with achievable outcomes identified by the quality improvement teams. One such project created wallet-size medication cards that listed patients’ medications to increase patients’ knowledge about their prescription medications and reduce medication errors. These early projects were followed by more patient-focused interventions such as the Diabetes All-Stars, a peer support group that encouraged patients to identify and use community resources, including local walking programs.
Experience with these efforts taught quality improvement team members how important team-based care and care integration are.

So far, we have convened ten half-day meetings at which the quality improvement teams come together for collaborative learning and the sharing of best practices. Quality improvement projects that are planned or under way are using diabetes registries to identify high-risk diabetes patients; assigning nurses to coordinate the care of diabetes patients with complex conditions; training community health workers to help patients navigate the health care system; and setting up regular diabetes group visits at which patients simultaneously receive medical care, diabetes education, and peer support in a group setting within a health center.

We modified for diabetes the Assessment of Chronic Illness Care tool,18 a validated instrument, to track the effectiveness of organizational changes in diabetes care. Each quality improvement team completes the Assessment of Chronic Illness Care survey twice a year, and scores are averaged across the groups and compared over time. To date, the teams have reported steady improvements in the organization of the health care system, links to community resources, delivery-system design, clinical information systems, and integration of Chronic Care Model elements (Exhibit 3).

**PATIENT ACTIVATION** The second of the four intervention components is patient activation (Exhibit 1). Few diabetes interventions are tailored for low-income groups or minorities. In addition, few address issues of patients’ mistrust of the health care system or patients’ perceptions of discrimination within the system. Furthermore, although shared decision making—in which patients are equal partners with their physicians in discussions and decisions about care—is associated with positive diabetes outcomes, African Americans are less likely to be engaged in shared decision making than their white counterparts.19 Therefore, we developed a patient activation intervention combining culturally tailored patient education with training in shared decision-making skills.

First, we developed the diabetes education portion of the patient intervention by adapting the International Diabetes Center’s BASICS curriculum,20 which covers diabetes basics (such as treatment and complications), nutrition, physical activity, and diabetes self-management (such as glucose monitoring and goal setting). We
### Exhibit 2

**Characteristics Of The Six Health Centers Participating In The South Side Diabetes Initiative**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Health center</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>CLINICAL STAFF (NUMBER OF FULL-TIME EQUIVALENTS)</strong>&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Physician</td>
<td>29.0</td>
</tr>
<tr>
<td>Nurse practitioner/physician assistant</td>
<td>0.0</td>
</tr>
<tr>
<td>Nurse (RN)</td>
<td>3.0</td>
</tr>
<tr>
<td>Nurse (LPN, MA)</td>
<td>4.0</td>
</tr>
<tr>
<td>Endocrinologist</td>
<td>29.0</td>
</tr>
<tr>
<td>Diabetes educator</td>
<td>3.0</td>
</tr>
<tr>
<td>Nutritionist</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>ANNUAL PATIENT VOLUME</strong>&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Total patients</td>
<td>6,817</td>
</tr>
<tr>
<td>Total encounters</td>
<td>15,575</td>
</tr>
<tr>
<td>Diabetes patients&lt;sup&gt;c&lt;/sup&gt;</td>
<td>2,107</td>
</tr>
<tr>
<td>Diabetes encounters&lt;sup&gt;c&lt;/sup&gt;</td>
<td>5,479</td>
</tr>
<tr>
<td><strong>DEMOGRAPHICS OF PATIENTS</strong>&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Mean patient age (years)</td>
<td>55</td>
</tr>
<tr>
<td>Female (%)</td>
<td>71</td>
</tr>
<tr>
<td>African American (%)</td>
<td>37</td>
</tr>
<tr>
<td><strong>PATIENT INSURANCE STATUS</strong></td>
<td></td>
</tr>
<tr>
<td>Medicaid (%)</td>
<td>8</td>
</tr>
<tr>
<td>Medicare (%)</td>
<td>37</td>
</tr>
<tr>
<td>Private insurance (%)</td>
<td>55</td>
</tr>
<tr>
<td>Uninsured (%)</td>
<td>&lt; 1</td>
</tr>
<tr>
<td><strong>CLINICAL CHARACTERISTICS OF DIABETES PATIENTS</strong>&lt;sup&gt;d&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Mean body mass index (kg/m&lt;sup&gt;2&lt;/sup&gt;)</td>
<td>31.9</td>
</tr>
<tr>
<td>Percent with hemoglobin A1c &lt;7%</td>
<td>35.8</td>
</tr>
<tr>
<td>Percent with blood pressure &lt;130/80 mm Hg</td>
<td>39.6</td>
</tr>
<tr>
<td>Percent with low density lipoprotein &lt;100 mg/dL</td>
<td>69.9</td>
</tr>
</tbody>
</table>

**Source** Authors’ analysis. **Notes** RN is registered nurse. LPN is licensed practical nurse. MA is medical assistant.<sup>a</sup> Full-time-equivalent staffing by role was reported by health centers and reflects current (2011) staffing. <sup>b</sup>Annual patient volume and demographics of patients were reported by health centers and reflect baseline (2008) data. Where 2008 data were not available for a particular data point, health centers reported data from the closest available year. Where site-specific data were not available, health centers extrapolated site-specific estimates from multisite data. <sup>c</sup> Diabetes patient was defined as any patient with at least one encounter in the reporting year with a primary diagnosis of diabetes—that is, with an International Classification of Diseases, Ninth Revision (ICD-9), code in the 250.XX range. <sup>d</sup>Clinical characteristics were assessed via chart reviews of 100 charts per health center, randomly sampled from diabetes patients with encounters in the baseline year (2008).

### Exhibit 3

**Changes In Six Health Centers’ Ability To Provide Chronic Illness Care**

<table>
<thead>
<tr>
<th>Area of chronic illness care</th>
<th>Mean score (lowest score, highest score)</th>
<th>June 2010–June 2011 change, mean (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization of health care system</td>
<td>5.5 (3.2, 7.0)</td>
<td>7.1 (5.0, 9.3)</td>
</tr>
<tr>
<td>Links to community resources</td>
<td>3.8 (2.3, 5.3)</td>
<td>5.1 (2.7, 6.3)</td>
</tr>
<tr>
<td>Diabetes self-management support</td>
<td>6.1 (4.0, 7.5)</td>
<td>6.8 (4.3, 10.0)</td>
</tr>
<tr>
<td>Decision support</td>
<td>5.2 (3.3, 6.5)</td>
<td>6.2 (4.8, 10.0)</td>
</tr>
<tr>
<td>Delivery-system design</td>
<td>4.9 (4.0, 6.7)</td>
<td>7.0 (6.0, 9.3)</td>
</tr>
<tr>
<td>Clinical information systems</td>
<td>5.0 (1.4, 6.6)</td>
<td>5.8 (4.6, 7.8)</td>
</tr>
<tr>
<td>Integration of chronic care model elements</td>
<td>4.3 (3.0, 6.2)</td>
<td>5.2 (4.0, 6.3)</td>
</tr>
<tr>
<td>Average program score</td>
<td>5.0 (3.6, 5.7)</td>
<td>6.1 (4.9, 7.2)</td>
</tr>
</tbody>
</table>

**Source** The Assessment of Chronic Illness Care (ACIC) tool; Note 18 in text.
made the curriculum’s sessions shorter and more frequent, and we used audiovisual aids to address potential literacy barriers. We also tailored nutritional education to address shopping and dietary patterns in the African American community. For example, we created a mock grocery store with food items from a local low-cost grocer, to demonstrate how to locate and choose healthy food alternatives.

We also developed the shared decision-making portion of the patient intervention (based on our prior qualitative research) that included problem-based learning, group discussions, role playing, individual testimonies, and experiential learning. And we created a culturally tailored video and an interactive game about shared decision making.

After three months, class participants transition to quarterly diabetes support groups to help maintain what they have learned. The first thirty-four participants achieved improvement in their confidence in managing their diabetes, self-care behavior such as glucose monitoring and foot care (as measured by patient surveys), and glucose control (as measured by hemoglobin A1c).

**Provider Training** The third intervention component is clinician training that complements our patient education effort. We developed four ninety-minute workshops for the clinical staff to build their skills in cultural competency, communication (for example, reflective listening and open-ended inquiry), helping patients change their behavior (for example, through motivational interviewing), and shared decision making. The workshops incorporated role playing, group discussions, exercises, and reflection.

To date, more than ninety staff members have taken the workshops. In surveys after training, participants reported improved ability to use techniques to improve communication and clinical outcomes.

**Community Partnerships and Outreach** The fourth component involves community partnerships and outreach activities that engage diabetes patients in community settings. These outreach activities have enabled us to identify more than 4,000 people with diabetes who did not have a regular source of medical care and to link them to a medical home.

These efforts have occurred primarily through our collaboration with the University of Chicago’s Urban Health Initiative, which seeks to increase access to high-quality care on the South Side of Chicago. Its patient advocates work with frequent visitors to the emergency department at the University of Chicago Medical Center to establish ongoing primary care for them within the Urban Health Initiative’s South Side Healthcare Collaborative, a network of twenty-five health centers and local hospitals. All four community health centers in our intervention are members of the South Side Healthcare Collaborative.

We have also established partnerships with community-based organizations and businesses. We are working with a local farmers market, a major national pharmacy chain, and the city food bank to create a “pilot program of ‘food prescriptions’ that would provide access to free or discounted healthy food, such as fresh produce. We collaborate with a national grocery store chain to provide educational tours around several of its stores in Chicago. The chain donates healthy food for our outreach efforts.

In another collaborative effort, we partner with a high-use community center that has a popular monthly food pantry. We provide healthy cooking demonstrations using donated food, conduct diabetes and cardiovascular disease screening, disseminate health information, and make referrals to medical homes. This ongoing effort has reached more than 600 members of the community thus far.

Finally, our research and implementation team and our quality improvement teams educate the public about diabetes through local media and community venues. For example, team members have been frequent guest speakers on two prominent African American radio stations, presented a thirteen-week educational series on a cable TV network with an estimated viewing audience of half a million households, and discussed diabetes in lectures tailored for community members.

**Integrating The Components** Our observations suggest that integrating the four intervention components increases the power of each component to improve diabetes outcomes. For example, patients are more likely to engage in shared decision making if both they and providers receive communication training. Thus, the workshops for health care providers include content about shared decision making that echoes what patients learn in the diabetes activation classes.

Patients who enroll in the activation classes are encouraged to make use of community resources. Many have visited the food pantry, participated in grocery store tours, and joined public fitness centers. These resources bolster their ability to sustain the behavioral changes taught in class. One of the nurse practitioners who helps teach patient classes also provides care management, which allows her to reinforce class teachings in one-on-one clinical visits.

Integrating community resources with the health care delivery system is a key goal of our
intervention. Not only do community partnerships provide resources to diabetes patients already receiving care, but they also allow us to link people without a provider to comprehensive medical care.

We are exploring the use within our health centers of community health workers and so-called patient navigators—who can provide health education, help patients make clinic appointments, identify barriers to self-care, connect patients to community resources, and work with the health care team to address patients’ diabetes needs. One potential approach identifies such workers from the pool of patients who have completed the diabetes activation classes. This strategy could further integrate the intervention components and reduce the need for duplicative training in diabetes education.

Other measures to increase patient communication and outreach include communicating with patients via text messaging through mobile phones. We piloted an interactive text message-based intervention providing automated, patient-selected diabetes care reminders. Most patients reported that they were “highly satisfied” (94 percent) with the program, and their self-reported self-management confidence and skills improved during the study period.\textsuperscript{21}

We are piloting the use of such technology by a nurse care manager who coordinates care with providers at the two university-based clinics, acting as an intermediary between providers and patients and using the technology to send alerts and reminders to patients. Such technology could also be used by community health workers.

Challenges And Lessons Learned
We describe here preliminary lessons learned from our early work. For more details, see online Appendix Exhibit 1.\textsuperscript{24}

\textbf{START SMALL} Initially, we envisioned the quality improvement teams as developing team-based care that integrated health systems and community resources. However, each health center chose to start with more narrowly focused quality improvement projects, which proved to be the best strategy. Starting with smaller projects allowed teams to build quality improvement infrastructure and healthy team dynamics. In addition, early successes enhanced the teams’ efficacy and sense of ownership of the projects. By the second year, after working on smaller tasks, each health center realized that larger system changes—such as team-based care and care coordination—were important goals.

Similarly, we began with small projects with our community partners, and we expanded the range and depth of activities over time.

\textbf{INCLUDE COACHING} We underestimated the need for regular, personalized quality improvement coaching and had to quickly increase support in this area. Each health center had an interest in improving diabetes care and some prior quality improvement experience. However, the centers’ baseline capability and readiness to change varied. All of them benefited from coaching on fundamental issues such as forming a working team, getting leadership buy-in, analyzing fundamental problems, brainstorming about innovations, and dealing with team turnover.

Each health center had competing priorities and pressures. For all of them, the basic instruction, encouragement, and setting deadlines were critical for moving the project ahead.

\textbf{WORK WITH STAFF CHAMPIONS} Identifying and working with staff champions has been vital for the project’s survival and progress. For example, although we initially got the approval of each health center’s chief executive officer or executive director, we quickly learned that it is critical to involve champions at all levels, including providers, nurses, and front office staff. Similarly, identifying key champions within community organizations and businesses has been crucial.

Even with multiple champions, however, it is important to remember that building relationships takes time and commitment. This is particularly true when academic centers partner with organizations in low-income, minority communities where mistrust of academic institutions is strong. Key members of our research team are African Americans with strong ties to the South Side, and we drew on their social capital and the community’s trust in them to develop strategic partnerships. Relationships were also critical in linking patients to community resources. Patients who attended classes were more likely to make use of a resource such as a food pantry if a patient champion or research team member organized a visit to it for the class.

\textbf{UNDERSTAND ORGANIZATIONAL CULTURE} It is important to understand the organizational and political climate when working with clinical organizations, community groups, and local businesses. If their organizational missions were not aligned with our project’s goals, health centers were reluctant to implement quality improvement projects, and community partners resisted starting new programs.

To execute their projects more effectively, it has been helpful for our quality improvement teams to identify organizational barriers to change—for instance, infrastructure or institutional culture—and how organizations adjust to external developments, such as economic pressure. Within the community, our research and
implementation team has found it helpful to understand the local political landscape as we worked to gain the support of local aldermen and other elected officials.

**FOLLOW THE PRINCIPLES OF COMMUNITY-BASED RESEARCH** Principles of community-based research were relevant to our work with community organizations and our quality improvement work. These principles include mutual respect, trust, equal partnerships, shared learning, demonstration of the value of the intervention, and commitment to a long-term partnership. We found them to be fundamental to building a successful relationship.

**KEEP THE GRAND VISION IN VIEW** Complexity, workload, and the need for buy-in from the quality improvement teams made it impossible to implement all components of our intervention simultaneously. Yet having a phased implementation reduced the potential impact of individual components and often left the teams feeling that the project was unfocused and had shifting priorities.

It is important to present the grand vision at the beginning of a project and to develop shared expectations of the entire project as early as possible. It is also important to refer to the vision regularly to keep it fresh in participants’ minds.

**PROVIDE COMMUNICATION TRAINING** Despite improved confidence in their ability to participate in shared decision making, patients’ behavior in this regard did not change substantially after the activation classes. Qualitative interviews suggested that patients were concerned that their providers would discourage them from taking a more active role in their own care.

We realized that we needed to implement the provider workshops simultaneously with the activation classes and to better integrate the communication curricula of patients and providers. In addition, we now send providers a notification letter when a patient enrolls in the class and ask them to encourage the patient’s efforts to increase self-management.

**IDENTIFY PERSONNEL COMMITTED TO COMMUNITY ENGAGEMENT** Clinical staff did not generally view community education as core to their mission or part of their job description. Consequently, it was often challenging for the quality improvement teams to use information about community resources and to participate in community-based outreach. A survey revealed that front-desk staff and medical assistants in the health centers were more likely than nurses and physicians to report that their practice used community resources to help meet patients’ health care needs (p < 0.0001). This suggests that the front desk staff and assistants—who were also more likely than nurses and physicians to be African American (p < 0.001)—may be more familiar with community resources and more comfortable engaging patients in community settings than nurses and physicians. One potential strategy is to create parallel community engagement teams to work with quality improvement teams and spearhead the community outreach activities of their health centers.

**ALIGN WITH OTHER STRATEGIC INITIATIVES** Our project is part of the University of Chicago’s Urban Health Initiative, which has the support of the university president and the dean of the Biological Sciences Division. As a result, our project has received financial, infrastructural, and political support from the university.

In addition, obesity, cardiovascular disease, and diabetes are major health priorities of the city’s government and are aligned with its economic goals. Accordingly, we are initiating collaborations with the Chicago Department of Public Health.

**BE PERSISTENT** Each core intervention component requires large investments of time and resources. Treating them as stand-alone projects ignores the complex context that gives rise to health disparities. Yet integrating the four components requires additional investments of time and resources, such as relationship building between center staff and community partners.

Our experience has been that virtually everyone on the clinical and community sides of our partnerships recognizes the value of an integrated approach and is driven by the same vision. However, daily implementation challenges make persistence a key factor in determining success of the program.

**FOCUS ON SUSTAINABILITY FROM THE START** Our project is currently supported through two external grants, and its sustainability has been a priority for the research and implementation team. We have sought to incorporate changes into the existing infrastructure and protocols of the health centers so that changes become “business as usual.” For example, the patient education classes will continue to be the primary means of diabetes education at several of the centers.

In addition, we have sought to link community organizations directly to health center staff so that the collaborations and partnerships can be sustained over time. We have also invested a great deal of time in coaching the quality improvement teams to ultimately become self-sufficient. Health policy changes—such as increased reimbursement for diabetes education and bundled payment systems—will give other health centers additional incentives to initiate and sustain efforts similar to our work on Chicago’s South Side.
Conclusion
The fact that racial and ethnic minorities in the United States experience disparities in the health care they receive and their health outcomes compared with white Americans is an important problem with multiple causes. Only by creating integrated systems that address those multiple causes will we begin to see real progress in reducing disparities. Our approach to reducing diabetes disparities among people living on the South Side of Chicago combines the strengths of health systems, communities, and patients and shows evidence of effectiveness.

However, our findings are only preliminary. Future analyses of data that compare diabetes care and outcomes at our six intervention health centers to six control clinics will better allow us to assess the impact of our program.

Our initiative neatly aligns with the potential of accountable care organizations, or integrated health care teams serving particular populations. Our approach to reducing diabetes disparities and the lessons we have learned along the way can inform the implementation of accountable care organizations and other programs that seek to improve health care quality and reduce disparities with the assistance of community partners.

NOTES


To access the Appendix, click on the Appendix link in the box to the right of the article online.


In this month’s Health Affairs, Monica Peek and coauthors describe an intervention in the largely low-income, African American South Side of Chicago that integrates the strengths of health systems, communities, and patients to reduce disparities in diabetes care and outcomes. The authors relate preliminary findings, such as improved diabetes care and control, and they discuss lessons learned to date about efforts to improve quality and reduce disparities.

“This project was a great opportunity to work together to make a difference in the lives of our neighbors—people we pass every day on the street,” says Peek, an assistant professor of medicine in the Section of General Internal Medicine, Department of Medicine, at the University of Chicago.

At the university, Peek provides clinical care, teaches, and conducts health services research in the area of health disparities. As a member of the Robert Wood Johnson Foundation program office for Finding Answers: Disparities Research for Change, she led the systematic review of health care interventions to reduce disparities in diabetes care and outcomes. Peek is also an associate director of the Chicago Center for Diabetes Translation Research.

Peek’s research focuses on racial differences in patient-provider communication; patient empowerment interventions to improve such communication among African Americans with diabetes; and the development and evaluation of community-based, culturally tailored interventions to promote healthy behavior and preventive care, including women’s health, physical activity, and diabetes self-management. She received medical and master of public health degrees from the Johns Hopkins University.

Abigail Wilkes is a project manager in the Section of General Internal Medicine, Department of Medicine, at the University of Chicago, where she focuses on quality improvement and innovative patient-centered health care delivery interventions.

Wilkes completed her master of public health degree with a concentration in epidemiology at the George Washington University.

Tonya Roberson is a project manager at the University of Chicago Medical Center. Her research interests include patient activation interventions in patients with diabetes in underserved communities. Roberson is pursuing a master of public health degree at DePaul University.
Anna Goddu manages components of two programs: Improving Diabetes Care and Outcomes on the South Side of Chicago, and Finding Answers: Disparities Research for Change at the University of Chicago. She received a master’s degree in medical anthropology from the University of Oxford.

Michael Quinn is a senior research scientist in the Section of General Internal Medicine at the University of Chicago. He holds a doctorate in social and organizational psychology from Northern Illinois University and a master’s degree in clinical psychology from Eastern Illinois University.

Robert Nocon is a health services researcher in the Section of General Internal Medicine at the University of Chicago. He received a master’s degree in health sciences from the Johns Hopkins Bloomberg School of Public Health.

Kristine Bordenave is a medical director with Humana’s Clinical Leadership and Policy Development, with a particular interest in health care delivery systems, utilization, and quality improvement. An internist, she received her medical degree from the University of New Mexico School of Medicine, with additional training through the American College of Physician Executives.

Elbert Huang is an associate professor of medicine, a research associate at the Center on Demography and Economics of Aging, and an associate director of the Chicago Center for Diabetes Translation Research, all at the University of Chicago. He is a general internist who studies clinical and health care policy issues at the intersection of diabetes, aging, and health economics.

Elbert Huang is a principal investigator of the National Institutes of Health–sponsored Diabetes and Aging Study. He received medical and master of public health degrees from Harvard University.

Hui Tang was a senior statistical analyst at the University of Chicago at the time the article was written. She is now a consultant at the Nielsen Company, in Chicago. She holds master’s degrees in statistics and computer science, both from Northern Illinois University.

Marshall Chin is a professor of medicine in the Section of General Internal Medicine at the University of Chicago and director of the Finding Answers: Disparities Research for Change National Program Office. He is the director of the Chicago Center for Diabetes Translation Research. His research focuses on improving the quality of care and reducing disparities for vulnerable populations with chronic disease.

Marshall Chin has a medical degree from the University of California, San Francisco, School of Medicine and a master of public health degree from the Harvard School of Public Health.
Over the past decade, researchers have shifted their focus from documenting health care disparities to identifying solutions to close the gap in care. Finding Answers: Disparities Research for Change, a national program of the Robert Wood Johnson Foundation, is charged with identifying promising interventions to reduce disparities. Based on our work conducting systematic reviews of the literature, evaluating promising practices, and providing technical assistance to health care organizations, we present a roadmap for reducing racial and ethnic disparities in care. The roadmap outlines a dynamic process in which individual interventions are just one part. It highlights that organizations and providers need to take responsibility for reducing disparities, establish a general infrastructure and culture to improve quality, and integrate targeted disparities interventions into quality improvement efforts. Additionally, we summarize the major lessons learned through the Finding Answers program. We share best practices for implementing disparities interventions and synthesize cross-cutting themes from 12 systematic reviews of the literature. Our research shows that promising interventions frequently are culturally tailored to meet patients’ needs, employ multidisciplinary teams of care providers, and target multiple leverage points along a patient’s pathway of care. Health education that uses interactive techniques to deliver skills training appears to be more effective than traditional didactic approaches. Furthermore, patient navigation and engaging family and community members in the health care process may improve outcomes for minority patients. We anticipate that the roadmap and best practices will be useful for organizations, policymakers, and researchers striving to provide high-quality equitable care.
4) Design the intervention(s)
5) Implement, evaluate, and adjust the intervention(s)
6) Sustain the intervention(s)

FINDINGS FROM THE SYSTEMATIC REVIEWS

The five systematic reviews in the present symposium examined interventions to improve minority health and potentially reduce disparities in asthma, HIV, colorectal cancer, prostate cancer, and cervical cancer.2–6 While many valuable ideas to address racial and ethnic health disparities are being pursued outside of the healthcare system, Finding Answers focuses specifically on what can be accomplished once regular access to healthcare services is achieved. Thus, the reviews focused on interventions that occur in or have a sustained linkage to a healthcare delivery setting; programs that were strictly community-based were outside the scope of the project. Additionally, the reviews examined racial and ethnic disparities in care and improvements in minority health, rather than geographic, socioeconomic, or other disparities. For a description of search strategies employed in these reviews, see the technical web appendix which can be accessed online (Electronic Supplementary Material).

Each review identified promising practices to improve minority health within the healthcare setting. The asthma paper found that educational interventions were most common, with culturally tailored, skills-based education showing promise.5 Outpatient support, as well as education for inpatient and emergency department patients, were effective. Similarly, the HIV review noted that interactive, skills-based instruction was more likely to be effective than didactic educational approaches for changing sexual health behavior.3 The paper identified a dearth of interventions that target minority men who have sex with men. The colorectal cancer review found that patient education and navigation were the most common interventions and that those with intense patient contact (e.g., in person or by telephone) were the most likely to increase screening rates.4 The colorectal cancer review identified no articles that described interventions to reduce disparities in post-screening follow-up, treatment, survivorship, or end-of-life care. Based on low to moderate evidence, the cervical cancer review reported that navigation combined with either education delivered by lay health educators or telephone support can increase the rate of screening for cervical cancer among minority populations.3 Telephone counseling might also increase the diagnosis and treatment of premalignant lesions of the cervix for minority women. The prostate cancer review focused on the importance of informed decision making for addressing prostate cancer among racial and ethnic minority men.6 Educational programs were the most effective intervention for improving knowledge among screening-eligible minority men. Cognitive behavioral strategies improved quality of life for minority men treated for localized prostate cancer. However, more research is needed about interventions to improve informed decision making and quality of life among minority men with prostate cancer.

CROSS-CUTTING THEMES

We looked across these reviews and Finding Answers’ previous research,11–17 and identified several cross-cutting themes. Our findings showed that promising interventions frequently were multi-factorial, targeting multiple leverage points along a patient’s pathway of care. Culturally-tailored interventions and those that employed a multi-disciplinary team of care providers also tended to be effective. Additionally, we found that education using interactive methods to deliver skills training were more effective than traditional, didactic approaches in which the patient was a passive learner. Patient navigation and interventions that actively involved family and community members in patient care showed promise for improving minority health outcomes. Finally, the majority of interventions targeted changing the knowledge and behavior of patients, generally with some form of education. Interventions directed at providers, microsystems, organizations, communities, and policies were far less common, thus representing an opportunity for future research.

ROADMAP FOR REDUCING DISPARITIES

Table 1 summarizes the major steps health care organizations need to undertake to reduce disparities. Past efforts have focused on Step 1 (e.g. collecting performance data stratified by race, ethnicity, and language) or Step 4 (designing a specific intervention). Our roadmap highlights that these are crucial steps, but will have limited impact unless the other steps are addressed. Effective implementation and long-term sustainability require attention to all six steps.

1) Recognize disparities and commit to reducing them

When health care organizations and providers realize there are disparities in their own practices,18 they become motivated to reduce them.19 Therefore, the Patient Protection and Affordable Care Act of 2010 makes the collection of performance data stratified by race, ethnicity, and language (REL) a priority.20 Similarly RWJF’s Aligning Forces for Quality Program initially focused its disparities efforts on the collection of REL data in different communities. The Institute of Medicine (IOM) recently recommended methods to collect REL data,21 and groups such as the Health Research and Educational Trust (HRET) have developed toolkits to guide organizations in this effort.22

Besides race-stratified performance data, training in health disparity issues (e.g., through cultural competency training) may help providers identify and act on disparities in their own practices. However, while cultural competency
training and stratified performance data may increase the readiness of providers and organizations to change their behavior,\textsuperscript{19} these interventions will need to be accompanied by more intensive approaches to ameliorate disparities. Sequist et al. found that cultural competency training and performance reports of the quality of diabetes care stratified by race and ethnicity increased providers’ awareness of disparities, but did not improve clinical outcomes.\textsuperscript{23} Therefore, our roadmap for reducing disparities highlights the importance of combining REL data collection with interventions targeted towards specific populations and settings.

2) Implement a basic quality improvement structure and process

Interventions to reduce disparities will not get very far unless there is a basic quality improvement structure and process upon which to build interventions.\textsuperscript{24,25} Basic elements include

- a. Stratify performance data by race, ethnicity, and language
- b. Provide disparities training for providers and staff
- c. Review existing literature
  (1) Robert Wood Johnson Foundation - Interventions database, systematic reviews (www.solvingdisparities.org)
  (2) Agency for Healthcare Research and Quality - Health Care Innovations Exchange (www.innovations.ahrq.gov/), forthcoming Evidence-Based Practice Center Review
  (3) Veterans Administration - forthcoming review
- d. Learn from peer organizations
- e. Use evidence-based strategies
  (1) Multifactorial interventions that address key drivers of disparities
  (2) Culturally targeted interventions
  (3) Team-based care
  (4) Patient navigation
  (5) Work with families and non-health care partners
  (6) Interactive, skills-based training for patients rather than passive, didactic education
- f. Consider specific types of interventions (Table 3)

5) Implement, evaluate, and adjust the intervention(s)

- a. Consider implementation models such as the Consolidated Framework for Implementation Research
- b. Consider best practices (Table 4)
- c. Evaluate and adjust intervention

6) Sustain the intervention(s)

- a. Institutionalize intervention
- b. Create financial model

training and stratified performance data may increase the readiness of providers and organizations to change their behavior,\textsuperscript{19} these interventions will need to be accompanied by more intensive approaches to ameliorate disparities. Sequist et al. found that cultural competency training and performance reports of the quality of diabetes care stratified by race and ethnicity increased providers’ awareness of disparities, but did not improve clinical outcomes.\textsuperscript{23} Therefore, our roadmap for reducing disparities highlights the importance of combining REL data collection with interventions targeted towards specific populations and settings.

Table 1. Six Steps for Reducing Racial and Ethnic Disparities in Care

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
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<tbody>
<tr>
<td>1)</td>
<td>Recognize disparities and commit to reducing them</td>
</tr>
<tr>
<td></td>
<td>a. Stratify performance data by race, ethnicity, and language</td>
</tr>
<tr>
<td></td>
<td>b. Provide disparities training for providers and staff</td>
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<tr>
<td>2)</td>
<td>Implement a basic quality improvement structure and process</td>
</tr>
<tr>
<td></td>
<td>a. Create a culture of quality</td>
</tr>
<tr>
<td></td>
<td>b. Designate a quality improvement team</td>
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<tr>
<td></td>
<td>c. Establish a quality improvement process</td>
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<tr>
<td></td>
<td>d. Set goals and metrics</td>
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<tr>
<td></td>
<td>e. Select a local champion</td>
</tr>
<tr>
<td></td>
<td>f. Obtain leadership support</td>
</tr>
<tr>
<td>3)</td>
<td>Make equity an integral component of quality improvement efforts</td>
</tr>
<tr>
<td></td>
<td>a. Recognize equity as a cross-cutting dimension of quality</td>
</tr>
<tr>
<td></td>
<td>b. Ensure that disparities efforts are not marginalized</td>
</tr>
<tr>
<td>4)</td>
<td>Design the intervention(s)</td>
</tr>
<tr>
<td></td>
<td>a. Determine root causes of disparities in specific context</td>
</tr>
<tr>
<td></td>
<td>b. Consider six levels of influence: patient, provider, microsystem, organization, community, policy</td>
</tr>
<tr>
<td></td>
<td>c. Review existing literature</td>
</tr>
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<td></td>
<td>f. Consider specific types of interventions (Table 3)</td>
</tr>
<tr>
<td>5)</td>
<td>Implement, evaluate, and adjust the intervention(s)</td>
</tr>
<tr>
<td></td>
<td>a. Consider implementation models such as the Consolidated Framework for Implementation Research</td>
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</tr>
<tr>
<td></td>
<td>c. Evaluate and adjust intervention</td>
</tr>
<tr>
<td>6)</td>
<td>Sustain the intervention(s)</td>
</tr>
<tr>
<td></td>
<td>a. Institutionalize intervention</td>
</tr>
<tr>
<td></td>
<td>b. Create financial model</td>
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</table>

For too long, disparities reduction and quality improvement have been two different worlds. People generally thought about reducing disparities separately from efforts to improve quality, and oftentimes different people in an organization were responsible for implementing disparity and quality initiatives. A major development over the past decade is the increasing recognition that equity is a fundamental component of quality of care. Efforts to reduce disparities need to be mainstreamed into routine quality improvement efforts rather than being marginalized.\textsuperscript{26} That is, we need to think about the needs of the vulnerable patients we serve as we design interventions to improve care in our organizations, and address those needs as part of every quality improvement initiative. The Institute of Medicine’s \textit{Crossing the Quality Chasm} report stated that equity was one of six components of quality,\textsuperscript{27} and the IOM’s 2010 report \textit{Future Directions for the National Healthcare Quality and Disparities Reports} highlighted equity further by elevating it to a cross-cutting dimension that intersects with all components of quality care.\textsuperscript{28} Major health care organizations have instituted initiatives that promote the integration of equity into quality efforts including the American Board of Internal Medicine (Disparities module as part of the recertification process), American College of Cardiology (Coalition to Reduce Racial and Ethnic Disparities in Cardiovascular Disease Outcomes [CREDO] initiative),\textsuperscript{29} American Medical Association (Commission to End Health Care Disparities), American Hospital Association (Race, ethnicity, and language data collection),\textsuperscript{30} Joint Commission (Advancing Effective Communication, Cultural Competence, and Patient- and Family-Centered Care: a Roadmap for Hospitals),\textsuperscript{30} and National Quality Forum (Healthcare Disparities and Cultural Competency Consensus Standards Development). For many health care organizations and providers, this integration of equity and quality represents a fundamental change from generic quality improvement efforts that improve only the general system of care, to interventions that improve the system of care and are targeted to specific priority populations and settings.

4) Design the intervention(s)

While several themes have emerged regarding successful interventions to reduce health care disparities based on our systematic reviews and grantees, solutions must be individualized to specific contexts, patient populations, and
organizational settings. For example, solutions for reducing diabetes disparities for African-Americans in Chicago may differ from the answers for African-Americans in the Mississippi Delta. We recommend determining the root causes of disparities in the health care organization or provider’s patient population and designing interventions based on a conceptual model that targets six levels of influence: patient, provider, microsystem, organization, community, and policy (Table 2). Each level represents a different leverage point that can be addressed to reduce disparities. The relative importance of these levels may vary across diverse organizations and patient populations.

Specific intervention strategies can then be developed to target different levels of influence. Table 3 offers an overview of strategies identified through the review of approximately 400 disparities intervention studies, including the 33 Finding Answers projects and 12 systematic literature reviews. Common intervention strategies include delivering education and training, restructuring the care team, and increasing patient access to testing and screening. About half of the interventions targeted only one of the levels of influence described above; most efforts were directed at patients in the form of education or training. Research evaluating pay-for-performance, on the other hand, was scant and requires further attention, especially given current interest in incentive-based programs. Going forward, Finding Answers aims to categorize each of the approximately 400 studies by level of influence and strategy, and to identify which combinations are promising for disparities reduction.

Organizations can find practical resources and promising intervention strategies on the Finding Answers website (www.solvingdisparities.org) or the Agency for Healthcare Research and Quality (AHRQ) Health Care Innovations Exchange (www.innovations.ahrq.gov). Systematic reviews such as those by Finding Answers and forthcoming ones from the AHRQ Evidence-Based Practice Center Program and the Veterans Administration can inform what types of interventions are most appropriate in different situations. In addition, organizations can learn about successful projects from peers through learning collaboratives, site visits, case studies, and webinars.

While there is no silver bullet to reduce disparities, successful interventions reveal important themes. As previously noted, we looked across 12 systematic reviews of the literature and identified promising practices that can inform the design of future disparities interventions. These include culturally tailoring programs to meet patients’ needs, patient navigation, and engaging multidisciplinary teams of care providers in intervention delivery. Effective interventions frequently target multiple leverage points along a patient’s pathway of care and actively involve families and community members in the care process. Additionally, successful health education programs often incorporate interactive, skills-based training for minority patients.

5) Implement, evaluate, and adjust the intervention(s)

The National Institutes of Health recently held its fifth annual conference on the science of dissemination and implementation to promote further research in this field, create opportunities for peer-to-peer learning, and showcase available models and tools. One such model is the Consolidated Framework for Implementation Research (CFIR), for which Damshroeder et al. reviewed conceptual models of relevant factors in implementing a quality improvement intervention and synthesized existing frameworks into a single overarching model. The CFIR covers five domains: intervention characteristics (e.g. relative advantage, adaptability, complexity, cost), outer setting (e.g. patient needs and resources, external policy and...
incentives), inner setting (e.g. culture, implementation climate, readiness for implementation), characteristics of the individuals involved (e.g. knowledge and beliefs about the intervention, self-efficacy, stage of change), and the process of implementation (e.g. planning, engaging, executing, evaluating). Too often organizations focus on the content of an intervention without planning its implementation in sufficient detail. A model such as CFIR supplies a checklist of factors to consider in implementing an intervention to reduce disparities.

Through work with our 33 grantees, we have developed a series of best practices for implementing interventions to reduce disparities. These lessons were pulled from detailed qualitative data gathered through the Finding Answers program, and represent perspectives from organization leadership, providers, administrators, and front-line staff. We found common implementation challenges and solutions across health care settings. Table 4 summarizes best practices for disparities reduction efforts, provides the rationale and expected outcomes, and offers recommended strategies for delivering a high-quality equity initiative.

Implementation is an iterative process and organizations are unlikely to get the perfect solution on their first try. This table provides a roadmap to facilitate success.

### Table 3. Overview of Disparities Intervention Strategies

<table>
<thead>
<tr>
<th>Intervention Strategy</th>
<th>Definition</th>
<th>Examples</th>
</tr>
</thead>
</table>
| Deliver education and training        | Providing information, tools, and/or teaching skills.                      | Patient education in self-management<br>Provider training in cultural competency<br>Education via plays and skits<br>Communication skills training<br>Decision-making aid<br>Prescribed diet/exercise<br>Continuing Medical Education (CME)<br>Media education campaign<br>Church-based care delivery<br>School-based care delivery<br>Health/Learning collaborative<br-Coalition building/advocacy<br-Outreach to households<br-Group therapy<br-Partner counseling<br-Family therapy<br-Coping skills development<br-Motivational interviewing<br-Telespsychiatry<br-Risk/harm reduction<br-Patient reminder to schedule preventive care<br-Provider reminder of care protocol<br-Patient health maintenance card/health mini-record<br-Performance report cards stratified by race, ethnicity, and language<br-Nurse-led interventions<br-Pharmacist consultation<br-Increased involvement of primary care provider in specialty care<br-Peer coach/peer educator<br-Community/lay health workers<br-Patient navigator<br-Health literacy screening<br-Enhanced interpreter services<br-Free screening<br-Integrated screening<br-Screen-and-Treat<br-Rapid test results<br-Risk assessment<br-Vouchers for care<br-Reduced out-of-pocket expenses<br-Free give-aways<br-Pay for performance<br-Culturally targeted education materials<br-Patient-provider racial/ethnic concordance<br-Religious messaging<br-Home biomarker measurement transmitted to clinic<br-Peer storytelling on DVDs<br-Remote video language interpretation<br-Computerized reminders<br-Computer kiosks in clinic waiting room<br-Interactive computerized education/counseling<br-Home-based care<br-Clinic open door policy<br-Increased referrals/streamlined referral systems
Table 4. Best Practices for Implementing Interventions to Reduce Racial and Ethnic Disparities in Health Care

<table>
<thead>
<tr>
<th>Practice</th>
<th>Rationale</th>
<th>Possible Strategies</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assess organizational capacity</td>
<td>Interventions are more likely to succeed if the organization as a whole is ready for change.</td>
<td>Assess institutional resources (e.g., trained staff, materials, technology platforms) and match them with the needs of the intervention. Ensure ongoing financial support. Institute systems to offer feedback to providers and incentivize disparities reduction. Explicitly define equitable health care as a goal in mission statements. Build a work force that reflects the diversity of the patient population.</td>
<td>Organizations are equipped to implement and sustain the intervention.</td>
</tr>
<tr>
<td>Foster a culture of equity</td>
<td>Success is more likely if staff recognize that disparities exist within the organization and view inequality as an injustice that must be redressed.</td>
<td>Consider quality improvement specialists and on-site equity champions to fill these roles. Mainstream equity into all quality improvement efforts. Anticipate leadership and staff turnover: e.g., cross-train staff; incorporate intervention training into staff orientation; include program responsibilities in job descriptions.</td>
<td>Staff shares a definition of equitable care and places high value on its delivery.</td>
</tr>
<tr>
<td>Appoint staff to disparities reductions initiatives</td>
<td>A plan to improve equity requires human resources.</td>
<td>Leverage staff motivation to support the program: Present data that demonstrate potential for positive financial impact. Enhance the care team and promote care management outside of the clinic. Minimize burden and show respect for staff time.</td>
<td>Intervention is given adequate time and effort.</td>
</tr>
<tr>
<td>Identify and appeal to the equity rationale that is most important to your audience</td>
<td>Staff members are motivated for a variety of reasons: Leadership may respond well to programs that guarantee a positive return on investment and leverage existing resources. Providers are often concerned with maximizing efficiency during the office visit. Front-line staff may be wary of impacting patient flow and room availability.</td>
<td>Leverage staff motivation to support the program: Present data that demonstrate potential for positive financial impact. Enhance the care team and promote care management outside of the clinic. Minimize burden and show respect for staff time.</td>
<td>Buy-in across the organization is secured. Consistent and accurate uptake of interventions is encouraged.</td>
</tr>
<tr>
<td>Incorporate disparities interventions into existing systems and anticipate ripple effects</td>
<td>Everyone cares about patient outcomes. New programs may create redundant efforts or conflicting goals with existing quality improvement initiatives.</td>
<td>Inspire enthusiasm to help patients. Assess existing systems (e.g., electronic medical records) and identify opportunities for integration during the planning phase.</td>
<td>Workload and schedules are manageable. Disruptions and inconsistencies are minimized.</td>
</tr>
<tr>
<td>Involve members of the target population during program planning</td>
<td>Programs that are not culturally targeted risk rejection by patients.</td>
<td>Involve the target population in program design in a manner that is meaningful and inclusive. Engage patients, not just minority health workers. Regularly collect process measures, identify opportunities for improvement, and adapt the intervention accordingly. Use standardized checklists to monitor adherence.</td>
<td>Community engagement is advanced. Programs are relevant and effective.</td>
</tr>
<tr>
<td>Strike a balance between adherence and adaptability</td>
<td>Input by minority health workers is not a proxy for patient involvement. While adherence to protocol ensures consistency, flexibility is key when working with diverse patients.</td>
<td>Use standardized checklists to monitor adherence.</td>
<td>Programs are consistent, yet flexible.</td>
</tr>
<tr>
<td>Be realistic about the time necessary to move the dial on disparities</td>
<td>Improvements in minority health take time because of multiple challenges inside and outside the clinic.</td>
<td>Plan long-term follow-up to demonstrate statistically significant improvements in health outcomes.</td>
<td>A realistic timeline manages expectations and maintains ongoing support.</td>
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</table>

attempt. Thus, evaluation of the intervention and adjustments to the program based on performance data stratified by race, ethnicity, and language are integral parts of the implementation process. Setting realistic goals is essential to accurately assess program effectiveness. Processes of care (e.g., measurement of hemoglobin A1c in patients with diabetes) generally improve more rapidly than patient outcomes (e.g., actual hemoglobin A1c value), and may therefore be better markers of short-term disparities reduction success, while outcomes could be longer-term targets.

6) Sustain the intervention(s)

Health care organizations, administrative leaders, and providers need to proactively plan for the sustainability of the intervention. Sustainability is dependent upon institutionalizing the intervention and creating feasible financial models. Too often interventions are dependent upon the initial champion and first burst of enthusiasm. If that champion leaves the organization or if staff tire after the early stages of implementation, then the disparities initiative is at risk for discontinuation. Institutionalization requires
promoting an organizational culture that values equity, creating incentives to continue the effort, whether financial and/or non-financial, and weaving the intervention into the fabric of everyday operations so that it is part of routine care as opposed to a new add-on (e.g. Step 3 in Table 1).

In the long-term, however, interventions must be financially viable. The business case for reducing disparities is evolving and must be viewed from both societal and individual organization/provider perspectives. From a societal perspective, the business case for reducing disparities centers on direct medical costs, indirect costs, and the creation of a healthy national workforce in an increasingly competitive global economy. Laveist et al. estimate that disparities for minorities cost the United States $229 billion in direct medical expenditures and $1 trillion in indirect costs between 2003 and 2006. America’s demographics are becoming progressively more diverse. The United States Census Bureau estimates that by 2050, the Hispanic population will reach 30 %, the black population 13 %, and the Asian population 8 %. Thus, from global and national economic perspectives, disparities reduction will become increasingly important if we are to have a healthy workforce that can successfully compete in the international marketplace and support the rapidly growing non-working aging population on the Social Security and Medicare entitlement programs.

From the perspective of the individual health care organization or provider, the immediate incentives are more complex. Integrated care delivery systems have an incentive to reduce disparities to decrease costly emergency department visits and hospitalizations. Large insurers are incentivized to provide high quality care for everyone to be more competitive in marketing their products to employers with increasingly diverse workforces. However, outpatient clinics and providers in the current, predominantly fee-for-service world, especially those serving the uninsured and underinsured, frequently do not have clear incentives to reduce disparities since the money saved from the prevented emergency department visit or hospitalization does not accrue to them.

Currently, it is difficult to accurately predict the results of health care reform and efforts to contain the Medicare and Medicaid budgets, but several trends indicate that organizations would be wise to integrate disparities reduction into their ongoing quality improvement initiatives. Major national groups such as the Department of Health and Human Services (HHS), Agency for Healthcare Research and Quality, Centers for Disease Control (CDC), Centers for Medicare and Medicaid Services, and Institute of Medicine have consistently stressed the importance of reducing health care disparities and using quality improvement as a major tool to accomplish this goal. The Affordable Care Act emphasizes collection of race, ethnicity, and language data. Private demonstration projects, such as the Robert Wood Johnson Foundation Aligning Forces for Quality Program, aim for multistakeholder coalitions of providers, payers, health care organizations, and consumers to improve quality and reduce disparities on regional levels. Intense policy attention has been devoted to accountable care organizations, the patient-centered medical home, and bundled payments. These organizational structures and financing mechanisms emphasize coordinated, population-based care that may reduce disparities.

Reducing racial and ethnic disparities in care is the right thing to do for patients, and, from a business perspective, health care organizations put themselves at risk if they do not prepare for policy and reimbursement changes that encourage reduction of disparities. We believe that health care organizations and providers would be imprudent if they did not plan for payment and coverage possibilities such as:

1) Incentives and reimbursements for team-based care. Team-based care is one of the most consistently successful types of disparities interventions, but current payment mechanisms often do not create viable business models for sustainability. We believe that it is likely that future policies encouraging efficiency will increasingly reimburse or incentivize team-based care management activities; reimburse or incentivize use of non-physician members of the team, such as community health workers, peer educators and patient navigators; and ensure that downstream savings from care teams, such as averted hospitalizations and emergency department visits, flow back to those that generated the savings.

2) Implementation of pay-for-performance programs for reducing racial and ethnic disparities. Pay-for-performance is likely to become part of efforts to move from paying for volume to paying for quality. It will be important to incorporate safeguards such as pay-for-improvement to avoid cherry picking of easy patients, patient dropping, and harming of poorly resourced organizations caring for predominantly vulnerable populations.

3) Incentives to create linkages between community and health care system. The new CDC Health Disparities and Inequalities Report and HHS National Strategy for Quality Improvement in Health Care exemplify the rise of combined public health—health care approaches to reduce disparities. Integration of community health workers and other peer-based programming into the health care team shows potential and there is evidence that directly involving families, schools, and community-based organizations in health care interventions can improve health outcomes.

CONCLUSION

As outlined in our roadmap, it is critical to create an organizational culture and infrastructure for improving
quality and equity. Organizations must design, implement, and sustain interventions based on the specific causes of disparities and their unique institutional environments and patient needs. To be most effective, all of these elements eventually need to be addressed; however, we do not want to encourage paralysis for those who might perceive a daunting set of obstacles to overcome. Instead, our experience has been that it useful for an organization to start working on disparities by targeting whatever step or action feels right to them and is thus a priority. Eventually the other steps will need to be addressed, but reducing disparities is often a dynamic process that evolves over time. While more disparities intervention research is needed, we have learned much over the past 10 years about which approaches are likely to succeed. The time for action is now.

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