ABSTRACT—In response to the growing incidence and prevalence of diabetes, quality and disparity of care concerns, and the increasing diversity of the US and Connecticut’s populations, the Connecticut Health Foundation funded Qualidigm to implement the Equity and Quality (EQual) Health-Care Project. Now in its second full year, the EQual Health-Care Project is helping eight primary-care practices in Connecticut improve the equity and quality of diabetes care through technology, education, and quality improvement.

The incidence and prevalence of diabetes is rising at a considerable rate. According to the Centers for Disease Control and Prevention (CDC), 5.8% of the entire US population had a diagnosis of diabetes in 2006 compared with 2.5% in 1980. From 1980 to 2006, the crude prevalence of diagnosed diabetes increased by 132%, with increases noted across all age groups. In Connecticut, the percentage of adults age 18 and older with diagnosed diabetes rose from 4.5% in 1994 to 7.1% in 2008. The prevalence of diagnosed diabetes in the United States differs among racial and ethnic groups. Among non-Hispanic White adults age 20 or older, 6.6% are affected with diabetes, compared with 7.5% of Asian Americans, 10.4% of Hispanic/Latinos, and 11.8% of non-Hispanic Blacks.

The Agency for Healthcare Research and Quality produces an annual National Healthcare Quality Report (NHQR), which illustrates a breakdown of provided care for specific clinical conditions, including diabetes. Three of the most important preventive services for diabetes care are annual hemoglobin HbA1c measurements, dilated eye examinations, and foot examinations. Despite national spending of $174 billion per year on diabetes, the 2008 NHQR report found that among adults age 40 and older with diagnosed diabetes, only 40.1% received all three recommended services compared with 43.2% of the same group in 2002. While this does not reflect a statistically significant decline, it does suggest a downward trend in quality and represents an important opportunity for improvement in diabetes care.

According to the 2008 National Healthcare Disparities Report (NHDR) released by the U.S. Department of Health and Human Services, disparities of care persist in both health-care quality and access, with a prime ex-
ample being diabetes care. For recommended preventive services among diabetic adults 40 years and older, 41% of White adults received the services compared with 37% of African Americans and 34% of Hispanics.\(^5\) Furthermore, for the period 2003–2006, the rate of adults with diabetes who had their HbA1c under control (<7%) was significantly higher for Whites (60.5%) compared to Blacks (43.0%) and Hispanics (37.6%).\(^5\)

The population of the United States is growing and becoming more racially and ethnically diverse. According to the US Census Bureau, the US population was approximately 300 million in 2008, a gain of 8% compared with 2000.\(^6\) The population in 2008 was 65.6% non-Hispanic White, 15.4% Hispanic/Latino, and 12.8% non-Hispanic Black.\(^6\) A study released in August of 2008 by the US Census Bureau predicts that racial and ethnic minority groups, representing roughly one-third of the US population currently, are expected to reach 54% by 2050.\(^7\) Connecticut, with a population of approximately 3.5 million in 2008,\(^6\) is smaller than most states and has a relatively unique demographic character. Non-Hispanic Whites comprise 73.8% of the population, with Hispanic/Latinos at 12.0% and African Americans at 10.3%.\(^5\) However, live birth data from the 2006 Kaiser Family Foundation study indicate that 20.3% of live births in Connecticut reflect Hispanic/Latino ethnicity, and racial and ethnic minority groups accounted for 38.4% of all live-births in the state.\(^9\) Consistent with national trends, Connecticut will likely become more racially and ethnically diverse.

**The Connecticut Health Foundation’s 10-Year Strategic Plan**

The Connecticut Health Foundation (CT Health) created a 10-year strategic plan (2007–2017) that focuses on reducing racial and ethnic health disparities as one of three priorities.\(^10\) CT Health seeks to increase equity by effecting positive, sustainable change in systems, which include the interconnected set of policies, regulations, funding, institutions and professional practices, as well as the beliefs, behaviors and attitudes affecting the health of Connecticut residents.\(^14\) CT Health seeks to reduce health disparities by investing in systems changes that will close the gap existing among racial and ethnic groups. By eliminating such disparities, CT Health aims to ensure that Connecticut’s increasingly diverse communities have equal opportunity to attain better health.\(^11\) One of CT Health’s strategies for reducing racial and ethnic health disparities is improving the quality of health-care systems that enhance the patient-provider interaction in order to achieve more equitable treatment and outcomes for patients of color. CT Health became interested in partnering with practicing physicians in this strategy in recognition of the role physicians play on the front lines of care and as trusted leaders in local communities. In 2008, CT Health awarded two grants specifically aimed at engaging physicians in the growing movement to eliminate racial and ethnic health disparities. The Connecticut State Medical Society was awarded a two-year grant to implement a campaign to educate Connecticut physicians about racial and ethnic health inequalities, and Qualidigm was awarded a two-year grant for the Equity and Quality (EQual) Health-Care Project.\(^12\)

**Qualidigm’s Experience**

As an organization, Qualidigm has been involved in quality improvement work addressing both diabetes and disparities of care. For over 10 years, Qualidigm’s Quality Improvement Organization (QIO) work with Medicare has included efforts to improve the delivery of important diabetes preventive services in the primary-care office setting. In addition to developing expertise in the application of health information technology, Qualidigm refined two facets of the EQual intervention strategy (e.g., performance feedback and educational outreach) through its QIO contracts.\(^13,14\) Qualidigm’s EQual efforts have also included initiatives to reduce disparities of care, such as in mammography screening,\(^15\) and interventions to enhance appreciation of cultural competence among primary-care clinicians.\(^16\) Through funding of the National Susan G. Komen Breast Cancer Foundation, Qualidigm sought to uncover barriers to mammography screening among women with disabilities,\(^17\) another population who are often underserved. Qualidigm’s experiences have prepared it well for the EQual Health-Care Project, which requires expertise in the context (i.e., primary care offices), the content (i.e., diabetes and cultural competence), and the process (i.e., the intervention strategy).

**Recruitment and Intervention**

Now well underway, the EQual Health-Care Project is actively engaging the clinicians and staff of eight primary-care private practices in Connecticut to improve important preventive and chronic care diabetes services (Table 1). Future articles will describe the recruitment process, intervention strategy, and findings in more detail, but the participating offices serve a significant proportion of minority patients and care for a large number of patients with diabetes. The intervention strategy is appropriately multifaceted, leveraging both technical (e.g., patient registry software generating performance feedback reports, web-based training, and clinician and patient reminders) and nontechnical interventions (e.g., educational outreach visits, team care, interactive workshops, and clinician and patient educational resources). The intervention period, staggered based on recruitment, is one year for each office, and ends in December 2010. Qualidigm is working with
CT Health and an independent evaluator, Community Science (Gaithersburg, MD), to evaluate rigorously the findings of this project.

**Conclusion**

Given incidence and prevalence trends in diabetes, quality-of-care concerns, and demographic changes in the United States, racial and ethnic health disparities of care represent an increasing challenge. Through the EQual Health-Care Project and other initiatives, CT Health is committed to increasing the equity of care in Connecticut. Qualidigm, a QIO experienced in quality improvement and disparities of care, is actively working to improve office systems and increase the quality and equity of diabetes care through a multifaceted approach designed to improve office systems and increase the quality and equity of diabetes care.

**REFERENCES**


