

Evolution of a Diabetes Quality Improvement Program at an Urban Community Health Center

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La Clinica de la Raza is a community health center in the San Francisco Bay Area of California that serves a predominantly low-income, monolingual Spanish-speaking population. We have nine primary care clinics in three separate counties (Alameda, Contra Costa, and Solano), as well as multiple ancillary service sites and five school-based health centers. Approximately 46% of our patients have no health insurance, 48% have publicly funded insurance, and 6% have private insurance. Among the challenges of our patient population are a very low health literacy level and a high rate of chronic disease, especially diabetes. Our patients' high burden of illness has long made diabetes quality improvement (QI) work a priority at La Clinica. Our diabetes program has evolved in several distinct phases, and continues to be a dynamic work in progress.

Phase 1: Formation of the Collaborative

In 1999, La Clinica became one of the first community health centers nationally to join the Bureau of Primary Health Care's Health Disparities Collaborative (HDC). Before 1999, an interdisciplinary team had been meeting at La Clinica on a regular basis to try to improve outcomes in patients with diabetes, culminating in adopting Staged Diabetes Self-Management, a program of the International Diabetes Center in Minneapolis, Minn. The HDC introduced us to several key concepts and models from the QI world. These included the chronic care model, PDSA

(Plan-Do-Study-Act) cycles, and the importance of an interdisciplinary team with a "provider champion," senior leadership, and management support. These concepts continue to provide a framework for all of our QI work.

In the first year of the collaborative, we customized our practice management system to function as a diabetes registry. In subsequent years, we developed interfaces with our central lab and pharmacy to provide electronic downloads of lab results and medications. A key element of our early collaborative work was the collection and analysis of diabetes-related outcomes and the continuous process of PDSA cycles to improve these outcomes. Flow sheets consolidated diabetes-related information at each patient visit, health educators helped patients establish individual self-management goals, and providers were given individual data about their patients' panel outcomes. As a community health center with limited resources, the willingness of staff to spend additional, unpaid time on collaborative activities was crucial to our early success. Staff members were motivated to spend unpaid time in the interest of improving patient outcomes. Eventually, in the interest of equity and sustainability, we began to search for funding sources to support dedicated staff time to continue these activities.

Phase 2: Collaborative Spread

By 2000, we had an active diabetes collaborative at our flagship site in Oakland, Calif., with a dynamic physi-

cian and nutritionist team at the helm. However, our other sites were not yet participating. We began the slow process of spreading the collaborative, first populating a registry and printing flow sheets at each site, and later developing a site-specific multidisciplinary team. Progress at each site has varied, and staff turnover and competing priorities are always challenges. However, we currently have regular meetings and provider champions at all of our five adult primary care sites, and, when grant funding is available, we have managed to support dedicated time for some team members.

By 2002, we had almost 2,000 patients in our diabetes registry. However, our years of diabetes QI work still had not resulted in outcomes improvements. In 1999, our average hemoglobin A1c (A1C) was 8.0%. In 2002, it was still 8.0%. Our data did not show that our self-management goal-setting activities led to improved A1C levels. And, despite years of PDSA cycles focused on dilated eye exams, rates of annual retinal screens had not improved (~20%). We realized that new strategies were needed.

Phase 2: A Focus on Outcomes

In 2003, we launched the Advancing Diabetes Self-Management (ADSM) program. Funded by the Robert Wood Johnson Foundation, this program offered intensive self-management support to patients with the most recalcitrant diabetes. Eligibility criteria for the program included an A1C > 8.0% or lack of social and emotional

support. Community health workers, or *promotoras*, all of whom had diabetes or had a family member with diabetes, were trained in group empowerment, peer support, diabetes basics, and mental health basics. They worked individually with 5–20 patients each and also ran a twice-weekly walking club, a support group, and relaxation classes. Case conferencing with primary care providers helped make them part of the primary care team. Additionally, the *promotoras* helped a therapist co-facilitate a depression and diabetes therapy group for dual-diagnosed patients. At the end of the 4.5-year project, patients' average A1C had declined by 0.6 of a percentage point.

As we transitioned out of the ADSM project, we maintained a focus on A1C improvement. To continue improvement in diabetes outcomes, our goals needed to be part of the agency's overall QI processes and priorities. To that end, in 2005, we made the reduction in A1C a key goal in our Health Care Plan (the guiding QI document for the agency) as well as one of four key goals in our federal Objective Performance Review. We also incorporated a goal to improve dilated eye exam rates for patients with diabetes into our 2006 Health Care Plan. This led to a number of small, site-specific QI projects focused on increas-

ing access to services and patients' perceived importance of the exam. Since the incorporation of these goals into our agency's guiding plans, our outcomes have improved in both areas. The agency-wide A1C has decreased from 8.0 to 7.65%, and the dilated eye exam rate has increased from 20 to 40%.

Phase 3: A Move to Prevention

Despite our advances in diabetes care, we continue to see higher diabetes-related morbidity and mortality. Increasingly, we see the link between the high rates of obesity and other diabetes precursors in our patients and eventual poor outcomes. In 2002, after the Diabetes Prevention Program (DPP) showed that lifestyle change could prevent or delay the onset of diabetes, we implemented a similar program at La Clinica. Currently, we have 1,288 patients with identified pre-diabetes, many of whom have been entered into lifestyle classes. These weekly classes replicate the intervention studied in the DPP, focus on improvements in diet and exercise, incorporate motivational patient-centered techniques, and are conducted in Spanish. So far, in patients in whom we have follow-up data, we have demonstrated a decline in the rate of progression to diabetes that is similar to that of the DPP. For the 621 patients

for whom we have follow-up data, only 71 (11%) have progressed to diabetes.

Lessons Learned and Future Goals

We have experienced challenges and successes in our diabetes QI work. The importance of key champions cannot be overstated. Conversely, QI work has foundered at sites without dedicated champions. Staff turnover and the short-term nature of grant funding can set progress back, but we have been fortunate to have several key staff present since our diabetes collaborative began. Focusing on outcomes data and incorporating diabetes QI goals into the agency's larger QI goals have led to our greatest successes.

Our future goals include the continued spread and strengthening of all aspects of our collaborative framework, continued outcomes-oriented improvement projects, and a growing focus on prevention through our pre-diabetes and obesity programs.

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