



Introduction

More than 1.7 million Americans die each year due to chronic diseases such as diabetes, cardiovascular disease, stroke, and cancer. Racial and ethnic minority populations are disproportionately affected by both health disparities and chronic disease. For example, diabetes is 70 and 100 percent more prevalent among African Americans and Hispanics, respectively, than in Whites. Heart disease is the leading cause of death for all racial and ethnic groups in the United States.ⁱ Decreasing health disparities in chronic disease in these targeted populations has been identified as a top priority both by the federal government and states. Specifically, *Healthy People 2010* includes the elimination of health disparities as one of its central goals. Most state health agencies have set goals to eliminate health disparities through a variety of strategies. In 1998, the Health Resources and Services Administration's (HRSA) Bureau of Primary Health Care (BPHC) and the Institute for Healthcare Improvement (IHI) launched the Health Disparities Collaboratives (HDC). The HDC are a national program focused on decreasing health disparities through adoption of improvement processes by health centers. Since 1998, more than 645 health centers have participated in the HDC.ⁱⁱ

Several state health agencies have developed collaboratives similar to the structure of the HDC within the health agency to improve chronic disease care. Most of these state-run collaboratives are coordinated through the health agencies' diabetes prevention and control programs, which are typically funded by the Centers for Disease Control and Prevention (CDC). In addition to state level collaboratives, a few regional clusters of states are also implementing projects aimed at furthering the mission of the HDC. The purpose of this issue

brief is to provide an overview of the health disparity collaborative models and highlight the role of state health agencies supporting and implementing them.

What are the Health Disparities Collaboratives?

The HDC were created to transform primary care practice to improve care and eliminate health disparities. Through the use of three models: the Chronic Care Model; the IHI Learning Model; and the Improvement Model, the HDC bring Community Health Center (CHC) teams together to promote rapid change in chronic disease management over a 12 month period. Focus areas of the HDC include chronic disease, prevention, and business. Work towards these focus areas are intended to lead to total population management, or management of all individuals and all levels of a particular disease, within each CHC.ⁱⁱⁱ The HDC strive to:

- Facilitate and record improved health outcomes for underserved populations.
- Promote evidence-based care models within clinical practice.
- Expand the infrastructure, knowledge, and leadership to improve health status.
- Develop strategic partnerships.^{iv}

These goals are achieved through dedicated participation by patients, providers, and HDC staff at the national, state, and community level.

How are the Health Disparities Collaboratives Organized?

Funded by HRSA, the HDC are organized at the national level by an expert team that oversees participation across the country. HRSA divides the nation into five regional clusters: Northeast,

Southeast, Midwest, West Central, and Pacific West. At the cluster level, each state Primary Care Association (PCA) partners with one state clinical network to provide oversight to the health centers participating in the HDC. Most states have a cluster coordinator who provides technical assistance to each of the participating health centers. In addition, the CDC supports several state level collaboratives.

Other tools used by the clusters to communicate and facilitate the goals of the HDC include a steering committee, monthly calls, a listserv, and a virtual office. Each CHC has a team of three to five employees that allocate three to four hours each per week to the collaborative. Specific roles are filled by each team member: senior leader, day-to-day leader, clinical champion, and technical expert. A team could include a physician, registered nurse, and clinic manager.^v HRSA funds one PCA in each cluster. The awarded PCA then staffs the cluster to appropriately oversee the collaborative work in each of the cluster's states. State-based collaboratives are supported by partners, including the CDC, through staff time spent on the collaborative. For example, in Washington State, the tobacco control, heart disease and stroke prevention and control, and the diabetes prevention and control programs all support the Washington State Collaborative through a specified percent of staff time.

Models

Three models form the foundation for the HDC: the Chronic Care Model; the IHI Learning Model; and the Improvement Model. Together these three models provide the tools needed to promote positive change within CHCs in order to improve health outcomes for patients with chronic diseases. Every CHC incorporates each model.

- The Chronic Care Model was designed by the MacColl Institute for Healthcare Research to identify a patient's illness, provide evidence-based care, and encourage patients to take an active role in their care. The model is comprised of six components:

health care organization, community resources and policies, self-management support, decision support, delivery system design, and clinical information systems.

- The Learning Model was developed by the IHI and consists of learning sessions and action periods. Learning sessions are three seminars that teach CHC teams how to become active members of change. Action periods take place between the learning sessions in which teams participate in conference calls, a listserv, and a reporting system to share information and record patient data.
- The Improvement Model gives CHC teams the tools to promote change by using a rapid change cycle model called the Plan-Do-Study-Act (PDSA) and asks the following questions: What are we trying to accomplish? How will we know a change is an improvement? What changes can we make to ensure improvements?^{vi}

Focus Areas

The HDC have several content areas addressing major chronic diseases. Diabetes was the first collaborative introduced in 1998, followed by cardiovascular disease, asthma, depression, and cancer. Several collaboratives are currently being piloted or just finished pilots, including perinatal and patient safety, as well as access and efficiency. Participating CHCs must select a content area and a group of performance measures to implement. All participating CHCs must include three national measures in order to standardize a portion of the data. Examples of national measures for the diabetes collaborative include: patients with 2 Hemoglobin A1C tests in the last year, average Hemoglobin A1C, and self-management goal setting.^{vii}

Data Collection

Collection of data is an essential component of the HDC. At the state and CHC level, many efforts are being made to track patient outcomes to assess effectiveness of the HDC. At the state level, patient outcome data is analyzed and then shared with participating providers. Every

patient and correlating outcome measure(s) are entered into a patient registry. Registry systems vary between CHCs. Many CHCs use the Patient Electronic Care System (PECS), a software program that is available to all participating CHCs. Each CHC is required to track patients and submit monthly reports to the national HDC team for compilation and analysis. By 2010, the HDC aims to enroll 16 million individuals. Presently there are 500,000 patients in the national registry.

Although little outcome data has been published, many CHCs report tremendous improvement in patient outcomes for all chronic diseases included in the collaborative, especially diabetes and cardiovascular disease. According to a study published in *Diabetes Care* in 2004, rates of Hemoglobin A1C measurement, dietary counseling, foot examination, and dental referral all improved in patients of health centers participating in the Diabetes Collaborative. The study focused on process and outcome measures by collecting data from chart reviews, mailing a survey to providers, and interviewing team members over the telephone from 19 Midwest health centers.^{viii}

Successful CHC teams exhibit similar characteristics. According to cluster directors, strong leadership is essential to achieve positive outcomes for both the health center and patients. Thriving CHC teams have spread the collaborative to the entire health center to include all staff and patients.

Role of State Health Agencies

The role of state health agencies in the HDC varies between states and regions. In most states, diabetes and cardiovascular programs within the health agency participate on monthly calls with cluster coordinators, collaborative participants, and the CDC. A state health agency representative sits on the steering committee of each cluster and several health agencies provide training and resources for community health centers in their area. In the Southeast cluster, health agency staff teaches at the learning sessions for HDC participants.

State Collaboratives

A small number of state health agencies have established statewide chronic disease collaboratives that share similar characteristics with the national HDC. Washington and Wisconsin each have long-standing collaboratives that have been serving residents for as long as or longer than the national HDC.

Washington State

The Washington State Collaborative (WSC) is a partnership between the Washington State Department of Health, Qualis Health, and Improving Chronic Illness Care. The WSC is supported by Qualis Health and Washington State, through funding from the CDC. Qualis Health is a health care quality improvement organization that provides much of the logistic work for trainings and phone calls. Improving Chronic Illness Care is a Robert Wood Johnson Foundation program, which created the Chronic Care Model used by the national HDC. Improving chronic care through evidence-based care and partnerships is the mission of the WSC.^{ix}

Established in 1999, the WSC shares many characteristics with the national HDC. The Chronic Care Model, Improvement Model, and the Breakthrough Series Model are the foundation for the WSC. Teams consist of three to four members, usually a physician, registered nurse, and a clinic manager. Chronic Disease Prevention Unit staff at the state health agency provides training sessions, monthly phone calls, and technical assistance for teams. Teams work for 13 months to learn and implement the models in their health care setting. The WSC is in the process of implementing a second phase called “sustaining change.” Data is recorded by participants using PECS or the Chronic Disease Electronic Management System (CDEMS), a patient registry system developed by the Washington State Department of Health. Currently, reporting data to the state health agency is optional.

Diabetes was the focus of the program pilot, which included 17 teams, half of which were CHCs. The success of the pilot led to the start of

a second collaborative the following year. Since its inception, the WSC has addressed diabetes, cardiovascular disease, asthma, and cancer. All four of the collaboratives have demonstrated improved patient outcomes; specifically, the diabetes collaborative has shown that the number of foot exams has increased 21 to 50 percent, blood sugar levels improved two to 12 percent, and blood pressure readings improved two to nine percent.^x The WSC began their fifth collaborative in February, with a focus on diabetes and cardiovascular disease.

The WSC differs from the national HDC in several aspects. Currently, over 70 percent of WSC participants are private providers. Participants are allowed to repeat any of the collaboratives. For example, King County has eight sites and participates in two collaboratives each year. The WSC offers a \$10,000 scholarship to 30 groups each year to assist organizations with the costs of participation. The WSC has awarded 22 scholarships for 2006.

Wisconsin

The Wisconsin Collaborative Diabetes Quality Improvement Project is a partnership between the Wisconsin Department of Health and Family Services' Diabetes Prevention and Control Program, the University of Wisconsin Population Health Institute, MetaStar, and a number of Health Maintenance Organizations (HMOs). The Wisconsin Collaborative is self-sustaining through its partners and is coordinated by the Diabetes Prevention and Control Program. The goal of the collaborative is to improve the quality of diabetes care in Wisconsin's HMOs. There are three components to the collaborative:

- Evaluate implementation of diabetes guidelines.
- Share resources, population-based strategies, and best practices.
- Improve diabetes care through collaborative quality improvement initiatives.

The CDC awarded a cooperative agreement to the Wisconsin Department of Health and Family Services in 1994. Through this award a Diabetes

Advisory Group was established and developed the *Wisconsin Essential Diabetes Mellitus Care Guidelines*. Between 1997 and 1998, over 70 percent of Wisconsin HMOs adopted these guidelines. In 1999, the HMOs, quality improvement groups, and health systems joined together as a collaborative to evaluate the implementation of the guidelines by using Health Plan Employer Data and Information Set (HEDIS) measures. Participants of the Wisconsin Collaborative boast improved diabetes and cardiovascular care from 1999 through the present.^{xi} By using HEDIS measures for care provided in HMOs, project collaborators were able to determine that the quality of diabetes care was improving for Wisconsin HMO members.

HMOs record and submit patient data to the University of Wisconsin Population Health Institute so it can be analyzed and shared. HMO quality managers hold forums once a quarter to discuss registry development, data collection challenges, and quality improvement strategies. Success of the collaborative led to an expanded focus in 2001 to include a select number of cardiovascular-related care measures. Cancer and asthma measures were added in 2002 and 2005 respectively. A statewide Diabetes Eye Care Initiative was implemented in 2001 to increase the number of eye exams as well as data reporting by the HMOs.

Cluster Work

Several of the HDC regional clusters have furthered the work of the national collaborative through expansion of the HDC model. The West Central and Northeast Cluster have taken innovative steps to improve patient outcomes and decrease health disparities.

West Central Cluster

As one of the five national clusters, West Central (Arkansas, Colorado, Louisiana, Montana, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah, and Wyoming) boasts extraordinary progress and creativity in their participation and furthering of the national HDC. Besides the standard focus

areas of diabetes, cardiovascular, and asthma, the West Central Cluster has pioneered a health center reorganization collaborative. In 2002, development of Access and Redesign began in response to requests from health centers for a business case supporting participation in the HDC. The goals of the project are to redesign clinic practice to achieve more accessible, quality care; increase capacity; and improve financial outcomes. Thirty-six centers within the cluster have participated in Access and Redesign over the past two years with positive results for the health centers and in turn, the patients. The West Central Cluster is currently working with two national experts to assist in spreading this project to the other clusters.

Northeast Cluster

Similar to the West Central Cluster, the Northeast Cluster (Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Puerto Rico, Rhode Island, Vermont, the Virgin Islands, Virginia, and West Virginia) is advancing the work of the collaboratives through a process improvement project and cancer dissemination project. The Care Model Process Leader program's goal is to support workforce development by training individuals from CHCs to be leaders at their respective sites and spreading the HDC models throughout the entire organization. Development of this project resulted from participant requests for additional tools to extend improvement to the entire organization. At the close of its pilot year in March 2006, over 200 individuals participated in the program. The program was shared with other clusters through a train-the-trainer format in November 2005.

Using HDC models, BPHC piloted a cancer dissemination project in the Northeast Cluster to progress towards population-based care. Besides HDC participants and staff, the project included the CDC and experts from the National Cancer Institute for training, leadership, and funding. The program teaches CHCs to seek community partners to increase and improve cancer screening rates. Community organizations have the potential to increase awareness, recruit

patients, and conduct basic screenings. Over 40,000 patients are in the registry from the four pilot sites. The results of the pilot project demonstrate an increase in the number of cancer screenings performed.

Conclusion

The HDC are an excellent example of how the federal government, state health agencies, and CHCs can work together to decrease health disparities and the incidence of chronic disease and improve patient care. The positive outcomes of the collaboratives at the state level are abundant. Wisconsin and Washington illustrate how state health agencies can work to improve health outcomes for their residents. The West Central and Northeast Cluster illustrate innovative means to advance the collaborative concept to a new level.

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ⁱ The Centers for Disease Control and Prevention. "Chronic Diseases: The Leading Causes of Death Washington." Available at www.cdc.gov/nccdphp/overview.htm. Accessed 5-11-06.

ⁱⁱ Health Disparities Collaboratives. "Executive Summary." Available at http://healthdisparities.net/hdc/Library/4-18-2005.6373/HDCExecutiveSummary_July2005.pdf. Accessed 2-28-06.

ⁱⁱⁱ Essential Disease Management. "Total Population Management Reduces Future Treatment Costs." Available at www.managedhealthcareexecutive.com/mhe/data/articlestandard/mhe/462002/37923/article.pdf. Accessed 5-11-06.

^{iv} Health Disparities Collaboratives. "Executive Summary." Available at http://healthdisparities.net/hdc/Library/4-18-2005.6373/HDCExecutiveSummary_July2005.pdf. Accessed 2-28-06.

^v Health Disparities Collaboratives. "HDC Organizational Structure." Available at www.healthdisparities.net/hdc/html/about.hdcStructure.aspx. Accessed 4-5-06.

^{vi} Institute for Healthcare Improvement. "Health Disparities Collaboratives." Available at www.ihl.org/IHI/Topics/ChronicConditions/Diabetes/Literature/HealthDisparitiesCollaboratives.htm. Accessed 3-27-06.

^{vii} Wisconsin Primary Care Association, Health Disparities Collaborative. "Midwest Health Disparities Fact Sheet." Available at www.wphca.org/hdc.htm. Accessed 3-3-06.

^{viii} Chin, M., Cook, S., Drum, Ml, et al. "Improving Diabetes Care in Midwest Community Health Centers with the Health Disparities Collaborative." *Diabetes Care*. 2004, v 1, 1: 2-8.

^{ix} Qualis Health. "Washington State Collaborative." Available at www.qualishealth.org/qi-washington/wsc/index.cfm. Accessed 4-5-06.

^x Washington State Collaborative. "Diabetes and Cardiovascular Disease." Brochure. 2006.

^{xi} The Wisconsin Diabetes Prevention and Control Program. "The Wisconsin Collaborative Diabetes Quality Improvement Project." Available at www.dhfs.state.wi.us/Health/diabetes/Diabetes_Collaborative_Improvement_Project.htm.

[borative_Improvement_Project.htm">borative_Improvement_Project.htm](#). Accessed 4-6-06.

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