



The *Diabetes Initiative* of the Robert Wood Johnson Foundation documented the feasibility, effectiveness, sustainability and cost effectiveness of self management programs in primary care and community settings around the country. Grants were awarded to 14 sites around the country: six to primary care organizations and eight to clinic-community partnership projects. The primary care organizations identified eight organizational and eight patient support characteristics of self management support that can be improved in primary care settings to ensure that self management is an integral part of usual care. The community projects demonstrated how clinic-community partnerships can strengthen the community environment and improve the continuum of services and supports that individuals need to manage their diabetes. Grantees were from urban, rural, frontier, and Indian Country settings; included Latino, African American, American Indian, and white populations; and served populations experiencing substantial health disparities.

#### KEY FINDINGS

- ✖ Self management programs and services can be implemented in a variety of clinical and community settings
- ✖ Resources and supports for self management (RSSM) can be increased in these settings
- ✖ Clinically meaningful results can be achieved
- ✖ Many intervention approaches can be sustained after grant funding ends
- ✖ Programs can be cost effective

#### Implementation of Self Management Programs

Programs were implemented in a variety of clinical and community settings. The clinical sites identified characteristics of optimal self management support at the organizational level and the patient care level. The eight organizational characteristics identified as important to implementing self management across the various types of primary care are: continuity of care, coordination of referrals, ongoing quality improvement, systems for documentation of self management support, patient input integration of self management support into primary care, team care and professional education and training.<sup>1</sup> They also identified eight characteristics of optimal patient support for self management: individualized assessment, self management education, collaborative goal setting/ problem solving, attention to emotional health, patient involvement, patient social support, and links to

community resources.<sup>2</sup> These 16 characteristics were developed into a self-assessment tool to be used to assess current capacity and to guide quality improvement. The tool, *The Assessment of Primary Care Resources and Supports for Chronic Disease Self Management (PCRS)* is available in paper form<sup>3</sup> or electronically.<sup>4</sup>

The community sites identified the creation of partnerships among clinics and community-based organizations as an essential strategy for building community supports for diabetes care.<sup>5</sup> Working together extends the range, variety and coordination of services available and builds the capacity of the partnership to respond to the needs of their population. Although specific approaches varied across sites, a number of themes emerged. Factors contributing to successful clinic-community

<sup>2</sup> <http://diabetesinitiative.org/build/patientsupports.html>

<sup>3</sup> <http://diabetesinitiative.org/build/PCRS.html>

<sup>4</sup> <http://improveselfmanagement.org/>

<sup>5</sup> [http://diabetesinitiative.org/documents/Partnership\\_1-17-07.pdf](http://diabetesinitiative.org/documents/Partnership_1-17-07.pdf)

<sup>1</sup> <http://diabetesinitiative.org/build/organizationalsupport.html>

partnerships and improved capacity to support self management include:

- ✘ Time to build trust
- ✘ Attention to the process of collaboration
- ✘ A shared understanding of the goals of the partnership
- ✘ Involvement of the population to be served
- ✘ A broader vision
- ✘ Recognition of and respect for everyone's contributions
- ✘ Acknowledgement/ celebration of successes

Some partners contributed materially by offering programs, services, supplies, space, funds, staff time, volunteers, etc. Others contributed in intangible ways, e.g., providing access to populations and services, expertise, opportunity and credibility. A tool for the assessment of partnership strength was developed by the *Diabetes Initiative*.<sup>6</sup>

### **Resources and Supports for Self Management (RSSM)**

*Diabetes Initiative* programs used a general framework for developing approaches to increase Resources and Supports for Self Management.<sup>7</sup> In recognition that healthcare settings and communities have different resources, needs, capacities, and challenges, RSSM was implemented in ways that fit individual settings and populations. The RSSM framework includes the following components:

- ✘ Continuity of quality clinical care
- ✘ Individualized assessment
- ✘ Collaborative goal-setting
- ✘ Key skills both for disease management and healthy behaviors such as healthy eating, physical activity, and healthy coping
- ✘ Ongoing follow-up and support to help people adjust their plans as problems arise, stay motivated, and see their providers when they need to
- ✘ Linkage to community resources

Physicians, nurses, dietitians, diabetes educators, medical assistants, community health workers, and others on the patient care team all contributed to the implementation of comprehensive programs to provide these resources and supports. Group medical visits, education classes, support groups, and other methods of delivery encouraged healthy eating, physical activity, healthy coping, and other behaviors critical to successful diabetes management. Community organizations and various partnerships improved local capacities for self management.

### **Clinically Meaningful Results**

Glycated hemoglobin (HbA1c), a reliable index of blood sugar levels over a three month period, is commonly used to assess adequacy of metabolic control in individuals with diabetes. A level of  $\leq 7\%$  is generally accepted as being indicative of good metabolic control. At baseline, 29% of the *Diabetes Initiative* participants were in good metabolic control, 39% in moderate control (HbA1c of 7.1 to 8.9%) and 32% in poor control (HbA1c  $\geq 9\%$ ). Overall, aggregate data on 1747 participants demonstrated a reduction of in HbA1c of 0.55 points (8.3% to 7.7%). This is comparable to reductions reported in the literature for carefully controlled research studies. The generally accepted benchmark for being clinically significant is a 0.5 point reduction. Additionally, the greatest decrease was seen in participants with the poorest control at baseline (10.9 to 9.1%), while those with moderate control were able to maintain their initial levels (7.8 to 7.7%) and those in good control at baseline maintained levels below the 7.0% standard (6.2 to 6.7%). Thus, *Diabetes Initiative* programs clearly demonstrated the clinical effectiveness of self management support for individuals from diverse settings who were in poor metabolic control. It is also likely that the ongoing follow-up and support provided through these programs contributed to the maintenance of good control for those whose initial control was good to moderate.

<sup>6</sup> <http://diabetesinitiative.org/build/clinic-communitypartnership.html>

<sup>7</sup> <http://diabetesinitiative.org/whatIsSelfManage.html>

## Sustainability of Programs

The grantees of the *Diabetes Initiative* reported four key approaches to sustainability:

- ✧ *Broaden program scope and reach:*  
Because most diabetes self management strategies are applicable to other chronic diseases, programs broadened their scope and reach by integrating successful strategies into systems of care for programs that focused on cardiovascular disease, women's health, depression, worksite wellness and obesity.
- ✧ *Systematize quality improvements:*  
Some quality improvements were programmatic, such as integrating *promotoras* into teams and systems of care, and others involved extensive training of providers and staff to permanently change how those staff understood and executed their roles in supporting patient self management.
- ✧ *Increase expectations:*  
Expectations in the *Diabetes Initiative* were changed by providing interactive opportunities that engaged patients in learning about self management and developing skills to take responsibility for managing their disease. Provider buy-in was increased when systems worked efficiently and patients did well.
- ✧ *Build new partnerships or expand the role of existing partners:*  
In *Diabetes Initiative* projects, partnership efforts sometimes resulted in new financial support for program sustainability, but more often, working together created synergy among partners and opportunities to strengthen and expand program services.

These projects demonstrated creative and practical ways to create synergy with other programs and services, create interest in and demand for their services, and build strategic relationships. For more information, see the full report, "Sustainability: A Retrospective Assessment of Diabetes Initiative Projects".<sup>8</sup>

## Cost Effectiveness

The Initiative's self management programs were cost effective. An analysis of four projects showed an incremental cost-effectiveness ratio of \$39,563/ per quality adjusted life year (QALY), well below the range of acceptable cost in health care of \$50 - \$75 thousand per QALY. These findings of 0.5 point reductions in HbA1c and cost effectiveness of approximately \$40 thousand per QALY are consistent with other major program reviews in the field.<sup>9</sup> To assist programs with conducting their own analyses, the *Diabetes Initiative* developed a tool, *The Business Case Handbook for Diabetes Self Management*, to assess cost effectiveness of self management programs.<sup>10</sup>

## Overall...

Self management programs provide resources and supports for persons with diabetes to improve ways in which they take care of their diabetes in order to realize benefits in health and quality of life. As demonstrated by the projects of the *Diabetes Initiative*, implementing resources and supports for self management in clinic and community settings is doable, effective and sustainable. For more information, publications, tools and other materials, visit <http://diabetesinitiative.org>.

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<sup>8</sup> <http://diabetesinitiative.org/support/sustainability.html>

<sup>9</sup> Brownson CA, Hoerger TJ, Fisher EB, Kilpatrick KE. Cost Effectiveness of Diabetes Self-Management Programs in Community Primary Care Settings. *The Diabetes Educator* 2009; 35(5):in press

<sup>10</sup> <http://diabetesinitiative.org/support/businessCase.html>