I CAN Prevent Diabetes (Individuals and Communities Acting Now to Prevent Diabetes): Strategies to Help Prevent Type 2 Diabetes in Minnesota

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Abstract

The Diabetes Prevention Program (DPP) showed that lifestyle interventions can reduce the risk of developing type 2 diabetes. Translating this research into ongoing programs has become an important public health outcome for the 21st century. One such translation project in Minnesota, I CAN Prevent Diabetes, has demonstrated that the DPP can be conducted via a partnership of community organizations and clinics with state and local public health agencies.

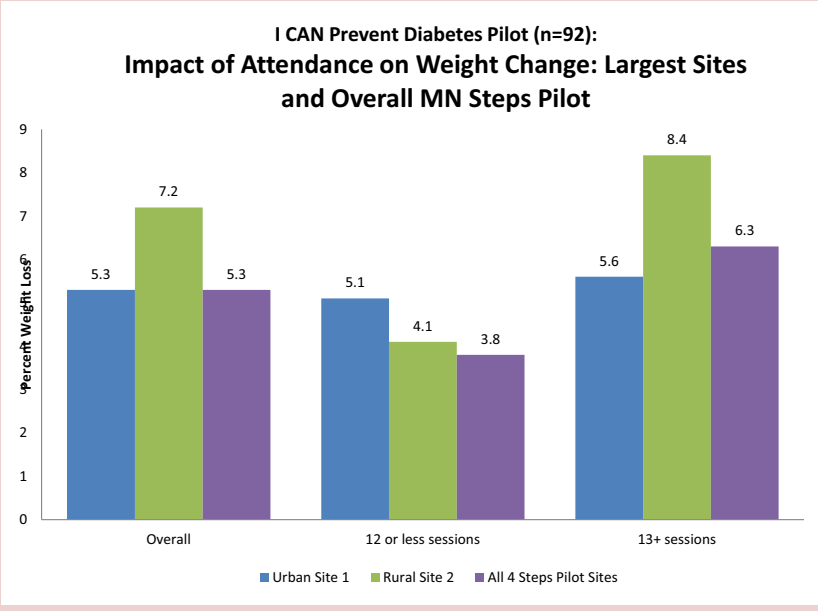
Introduction

Over the past decade, researchers have demonstrated that lifestyle intervention can effectively reduce the risk of developing type 2 diabetes, particularly if the dietary and activity changes result in a 7% weight loss (1). A 7% weight loss in the DPP was associated with a 58% reduction in progression to diabetes after 3 years. Successes in translating these interventional strategies into practice have established a key role for the DPP in national public health policies, health care reform, and in the Diabetes Prevention Recognition Program.

I CAN Prevent Diabetes

One such translation project in Minnesota initially funded by the Centers for Disease Control and Prevention (CDC) as part of the Diabetes Primary Prevention Initiative is Individuals and Communities Acting Now to Prevent Diabetes (I CAN Prevent Diabetes [I CAN PD]). The initial pilot (2007 through 2009) demonstrated that the original DPP research project could be conducted successfully in YMCAs or community clinics in partnership with local public health programs and combined with the efforts of the "Steps To a Healthier Community" and the Diabetes Program at the Minnesota Department of Health (MDH). The MDH Diabetes Program contracted with David Marrero, PhD, to train coaches in the YMCA or community clinic, based on his work in Indiana showing that facilitated groups were as effective as one-to-one coaching in disseminating information (2). Local public health clinics built prediabetes awareness and recruited participants for the I CAN PD intervention groups. This pilot established strong, successful YMCA programs in several Minnesota communities that later became part of the Y-USA's YMCA Diabetes Prevention Program. Pilot work also confirmed that a full 16-week program was feasible and that participants across all pilot sites who attended 80% of the sessions (13 or more) had 6.3% average weight loss compared to only 3.8% for those who attended 12 or fewer sessions (Fig. 1).

Figure 1.



The MDH Diabetes Program continues to promote diabetes prevention awareness that benefits both programs (Fig. 2). I CAN PD has now expanded to include more programs in greater Minnesota (Fig. 3). Collaboration with the Sage Plus (Minnesota's Wise Woman program) and the United States Department of Agriculture Extension's Simply Good Eating programs help to reach people with low incomes. Programs offered in Spanish have been successful in reaching high-risk Latino communities. Efforts are also underway to reach Somali and Hmong communities by building relationships with their health leaders and training bilingual lifestyle coaches.

Results

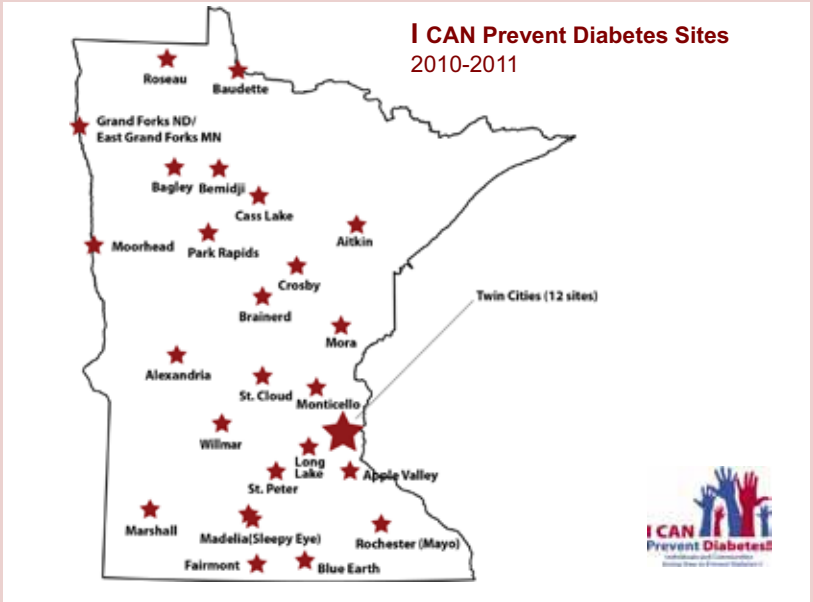
I CAN PD provides an overarching public health umbrella administered by the MDH Diabetes Program. In addition to the four pilot communities, 24 additional organizations have offered I CAN PD groups. On average, half of the participants in the I CAN PD program have shown ≥5% weight loss and one third have lost 7% or more of their original weight (n=224) (Fig. 4).

Program

All of the Minnesota programs are group-based, 16-week sessions and are similar to the model developed by Dr. David Marrero at the Indianapolis Diabetes Research Center (2, 3). Lifestyle coaches attend a rigorous 2-day training to ensure standardized delivery of the program. They receive copies of the CDC's curriculum, "Lifestyle Change," recently updated from the original DPP for the National Diabetes Prevention Program and additional curricula to use for the eight monthly postcore sessions (http://www.cdc.gov/diabetes/prevention/recognition/curriculum.htm). Sessions focus on group support, behavior change, social and

Figure 2.

Figure 3.



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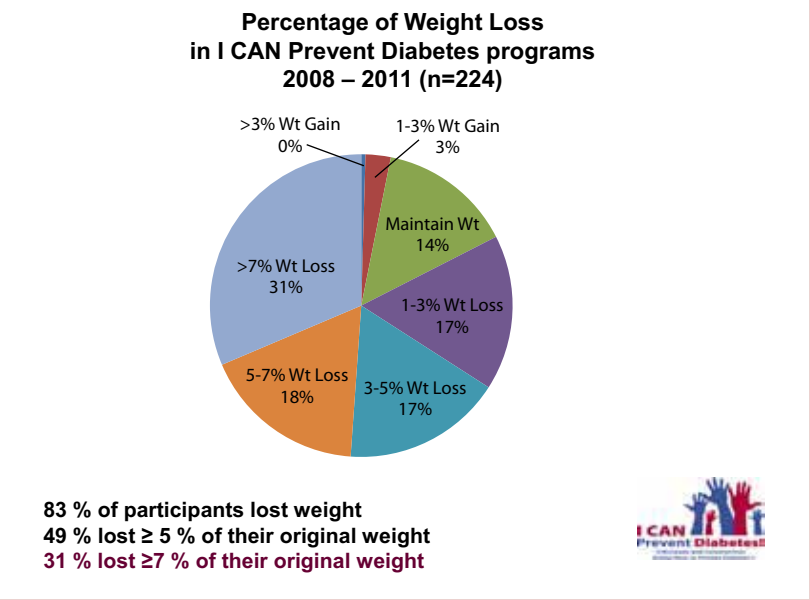

environmental barriers, learning how to consume less fat and smaller portions, increasing physical activity, keeping daily food logs, and weekly weigh-ins. All topics are designed to help participants reach a 7% weight loss.

One goal of I CAN PD is to develop and ensure that organizations continue to deliver sustainable diabetes prevention programs. The MDH Diabetes Program offers technical assistance to organizations to help assess their readiness to offer the I CAN PD and provides tools to help increase participant recruitment, logistics training to help develop an implementation plan, monthly conference calls for coaches to share their experiences, and evaluation support to analyze participant outcomes. In addition, MDH sponsors lifestyle coach training taught by contract master trainers (usually registered dietitians [RDs] who have experience leading DPP groups). Minnesota adds about 10 new I CAN PD organizations each year. To ensure program continuity, at least two coaches are trained at each site, and new coaches attend training if there is staff turnover. To ensure that the organization supports the program with staff and resources, one coach takes on the role of coordinator and administers the program.

The role of the coach is to facilitate the 16-week core and eight monthly postcore groups. They hold participants accountable by weighing them each week and reviewing their food and activity logs. Lifestyle coaches create a strong supportive group environment and facilitate (not teach) the group to solve problems and support each other. They empower and hold each individual accountable for his or her results. A lifestyle coach can be a health professional, community health worker or educator, social worker, or fitness instructor. The collaborative efforts of the RD and the community health worker creates an effective, culturally sensitive team.

The role of the coordinator is to ensure that the organization embraces the program, obtains funding, motivates providers to refer patients, and creates community media visibility. Coordinators plan their programs months before beginning the actual sessions and actively recruit participants. I CAN PD coordinators are frequently RDs, nurses, and certified diabetes educators.

Beginning in 2012, all organizations nationwide have the opportunity to work with the Diabetes Translation and Technical Assistance Center, Emory University, Atlanta, for lifestyle coach training (http://dttac.org/index.html). An organization can apply to the CDC to be a part of the Diabetes Prevention Recognition Program and prepare for reimbursement when its program becomes a reality (www.cdc.gov/diabetes/prevention/recognition).

Challenges

As in many programs across the country, the cost of delivering a year-long program and the lack of insurance reimbursement remains an issue. Continued national efforts to establish diabetes prevention programs as part of health care reform may help eliminate this problem. In the meantime, Minnesota I CAN PD sites often charge participants fees to help cover the costs of the program. Some seek grants or funds from local business or insurance foundations to help offset operational costs. A list of current sites and the fees they charge for participating are listed at www.icanpreventdiabetes.org.

Clinical Application

Each site determines how its program operates and recruits participants. MDH depends on sites to know what will work in their communities or clinics, who will be the supportive partners and champions, and how to promote the program to the participants in the most compelling manner. Lifestyle program

coordinators and coaches who are passionate about diabetes prevention have the strongest programs. The creativity and determination of the coordinator and the coaches make them the real champions and the visionaries of I CAN PD.

Summary

The DPP is an evidence-based program to help people lose 7% of their body weight in an effort to delay or prevent type 2 diabetes. The most successful programs have partnerships that help create awareness in the community and referrals from providers for at-risk patients to DPP programs in either the clinic or community setting. Our results show that successful participants attend at least 80% of the 16-week core program and engage in postcore programs to help maintain their weight loss or improve their outcomes. Training for coaches helps them to learn or refine their skills as group discussion facilitators. The program also seeks to empower participants by overcoming barriers to behavior change, which should give them the confidence to succeed.

References

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Community Implementation of Diabetes Prevention Programs: Essential Ingredients

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Abstract

Substantial evidence suggests that comprehensive lifestyle change programs to prevent type 2 diabetes can be disseminated in multiple community settings. According to translational research, 12 core sessions, at minimum, are needed to attain a 5% weight loss goal and meaningful reductions in cardio-metabolic risk. More sessions in the first 6 to 12 months of programs lead to even greater weight losses and health improvements. Community-based implementation requires a dynamic balancing of the priorities and abilities of the delivery system, the barriers faced by participants, and the ideals of evidence-based treatments. Nonetheless, as dissemination initiatives expand into increasingly diverse community settings, those presenting the initiatives should strive to incorporate the strongest behavioral strategies available in programs that provide a sufficient number of sessions for a sufficient duration.

Introduction

Considerable momentum has been building for dissemination of Diabetes Prevention Program (DPP) adapted lifestyle interventions. The purpose of this article is to briefly review this work and underscore the hallmark behavioral treatment strategies that have been shown to enable overweight and obese individuals to modify diet and physical activity, lose weight, and reduce cardio-metabolic risk. Particular attention is directed to evidence-based lifestyle programs that have been implemented in diverse community settings, the necessary number of sessions for clinically meaningful weight loss, the use of different intervention platforms and providers, and the challenges involved in suppressing the rate of weight regain over longer time periods.

The Evidence Base

Major international efficacy trials (1–3) have demonstrated that structured lifestyle intervention programs result in modest weight loss and significant reductions in diabetes risk compared to treatment with medication or placebo. In the past 5 years, more than 15 original research investigations in the United States have been undertaken with the stated aim of translating the DPP lifestyle intervention to various community settings (Table 1).

Targeting Diverse Regional and Ethnic Groups

The promise of feasible, achievable, and effective behavioral lifestyle interventions for cardio-metabolic control has encouraged investigators to extend the reach of DPP-adapted lifestyle interventions beyond academic medical centers and into community-based primary care, hospital, and clinical treatment