

Synchronous Distance Diabetes Prevention Program, Dose Response: Preliminary Results

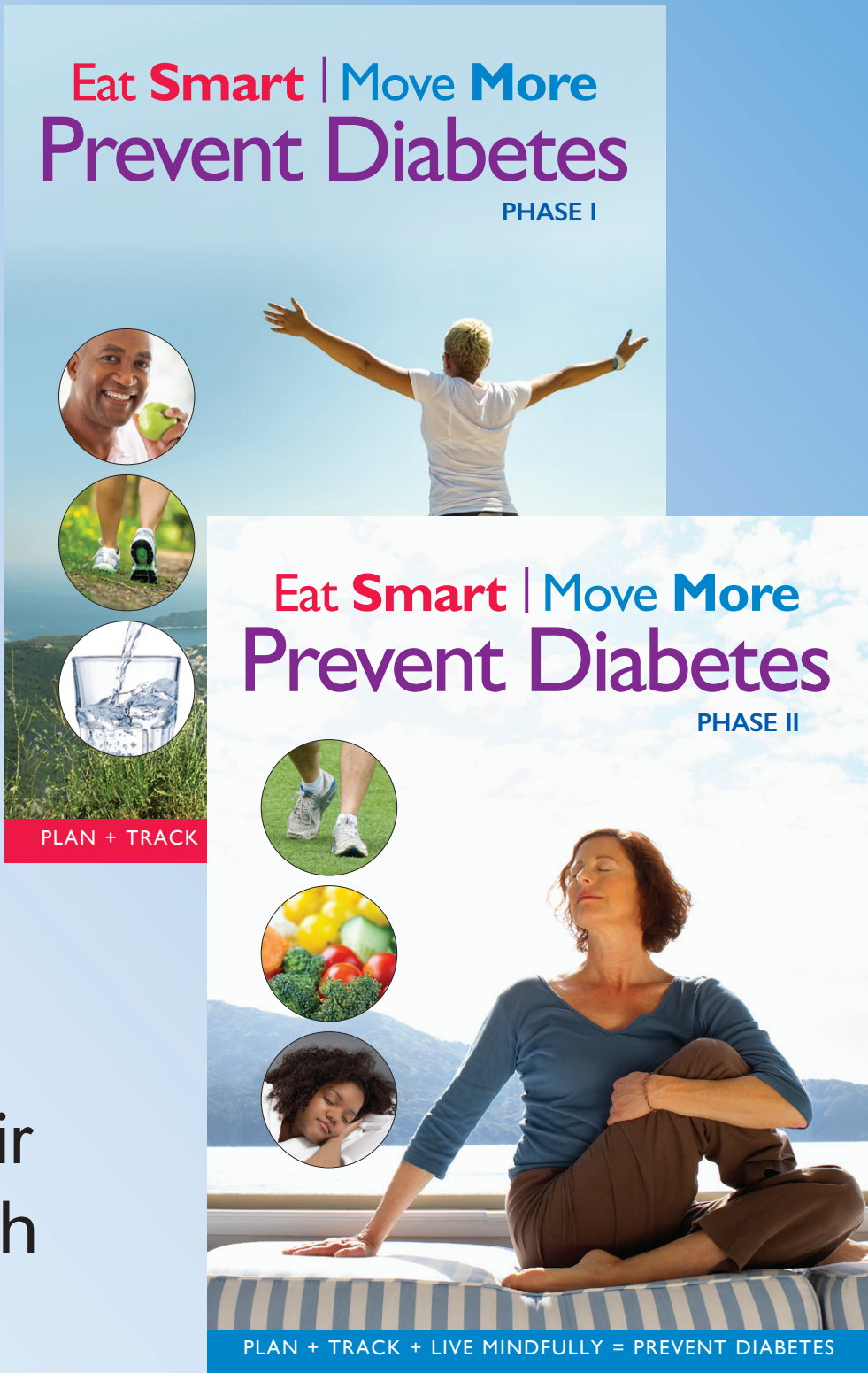
Carolyn Dunn, PhD, RDN, LDN NC State University, North Carolina, USA
Cathy Thomas, MAEd NC Division of Public Health, North Carolina, USA



- Eat Smart, Move More, Prevent Diabetes is a 12-month diabetes prevention program recognized by the Centers for Disease Control and Prevention.
- The program consists of Phase 1 with 16 lessons and Phase 2 with 8 lessons and has been successfully offered to more than 400 participants since May 2016.
- Trained lifestyle coaches lead live, interactive sessions in real-time that participants can conveniently attend from home, work or anywhere with Internet access.
- The program provides opportunities for participants to track their progress and emphasizes lifestyle changes for eating and physical activity.

Program Components

- **Eat Smart, Move More, Prevent Diabetes Magazines:** Full-color magazines that contain the most salient points from each lesson, recipes and more are provided for each Phase of the program.
- **Eat Smart, Move More, Prevent Diabetes My Progress Portal:** An online tool for participants to track their weekly progress and communicate with their instructor outside of class.



Lesson Titles

- | Phase 1 | | Phase 2 |
|-----------------------------------|---------------------------|--------------------------------|
| • Introduction | • Plan, Shop, Fix and Eat | • Find Your Fitness Connection |
| • Make Your Commitment | • Eat Out Less | • Cook Smart |
| • Re-Think Your Drink | • Manage Stress | • Eat More to Eat Less |
| • Eat Fewer Calories | • Move Strong | • Be Mindful |
| • Move More | • Start Smart | • Choose Healthy Fat |
| • Check the Facts | • Reduce Screen Time | • Get Enough Sleep |
| • Enjoy More Fruit and Vegetables | • Pack Smart Lunches | • Manage Holidays |
| • Right-Size Your Portions | • Keep Your Commitment | • Prevent Relapse |

Each lesson includes:

- In-depth information about why the behavior is important for weight loss
- Strategies for the participant to adopt the behavior
- Strategies for the family to adopt the behavior
- Guided discussion of how the participant can adopt the behavior
- Suggestions for mindful living including mindful eating
- Opportunity for sharing and celebrating

Introduction

More than half of Americans age 20 or older have either diabetes or prediabetes. Without weight loss and moderate physical activity, 15–30% of people with prediabetes will develop type 2 diabetes within five years. Individuals who participate in lifestyle interventions and who achieve a 5–7% decrease in body weight have shown a 58% decrease in their risk to develop type 2 diabetes. Diabetes prevention programs are often delivered via an in-person, onsite format. There has been an expansion of online and telehealth formats in recent years to expand the reach of prevention programs. There is limited evidence documenting the effectiveness of offering diabetes prevention programs in this format.

Methods

Eat Smart, Move More, Prevent Diabetes (ESMMPD) is a synchronous distance education diabetes prevention program approved by the Centers for Disease Control and Prevention. ESMMPD is a yearlong program that includes healthy eating, physical activity, and mindfulness strategies. Participants attend 16 classes in the first 5 months of the program (Phase 1) and 8 additional classes over the next 7 months (Phase 2). Classes are taught by a live instructor and include weekly communication through an online tracking portal. Participants enter their weight, A1c, weekly goals, and physical activity as well as questions to their instructor through the portal.

Results

Preliminary Program Results (n=388)

PROGRAM ATTENDANCE	WEIGHT LOSS
Completed Phase 1 only (n=95) ^{a, b, c, 1}	3.1%
Completed Phase 1 and 2 (n=179) ^{a, 1}	4.9%
Completed 12–19 of the 24 classes (n=75) ^b	4.7%
Completed 20 of the 24 classes (n=70) ^b	5.8%
Completed 23 of the 24 classes (n=34) ^c	6.7%

a, b, c, p < .01
1. Program completion is defined as attending at least 9 classes in Phase 1 and 3 classes in Phase 2.

Healthy Behaviors Adopted by Participants

HEALTHY BEHAVIOR	%
1. Am more mindful of what and how much I eat	96.9
2. Eat fewer calories	93.9
3. Eat smaller portions	93.0
4. Am more mindful of getting physical activity each day	89.8
5. Plan for holidays and traveling	79.2
6. Eat 1½–2 cups of fruit on most days	73.8
7. Eat 2–3 cups of vegetables on most days	73.2
8. Eat less fat food	70.6
9. Manage stress	68.2
10. Get enough sleep	67.2

Conclusion

A synchronous distance education diabetes prevention program has the potential to successfully enhance diabetes prevention efforts. Preliminary findings suggest that sustained attendance is a key component in a participant's weight loss.