

# American Association of Diabetes Educators – Phase 2: Evaluating the Impact of a Year Long, Augmented Diabetes Self-Management Support

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## *PROJECT OVERVIEW*

The American Association for Diabetes Educators (AADE) is the nation's leading diabetes educators' organization composed of nurses, dietitians, pharmacists, and other health professionals that aims to improve diabetes care through education. In this Together on Diabetes project, the AADE focused on patient self-management and navigation and integrated community support and mobilization. The AADE sought to build upon lessons learned from a prior demonstration project in order to provide culturally appropriate diabetes education, on-going support for diabetes self-management, and create an operationalized model of diabetes self-management support (DSMS). Specifically, this project aimed to implement and evaluate diabetes self-management education (DSME) and DSMS provided by multi-level teams consisting of diabetes educators and patient supporters at four sites serving populations with disproportionately high rates of type 2 diabetes.

To understand the effectiveness of this model, AADE conducted a randomized controlled trial across four sites. The four sites were the Cross Trails Medical Center, the El Rio Community Health Center, the Family Care Health Center, and the Triad Adult and Pediatric Medicine, Inc. The National Center for Farmworker Health (NCFH) in Buda, Texas provided the telephone services needed to implement the DSMS. A total of 446 patients across the four sites were enrolled in the study. All patients received DSME that lasted up to six months per patient. After the delivery of DSME, half of the patients (64 at each partner site) were randomly selected to also receive DSMS. DSMS consisted of at least monthly contact with patient supporters as well as personalized support for achieving individual diabetes self-management goals.

## *CONTEXT AND PARTNERS*

The Phase 2 project provided DSME and DSMS at sites serving geographic areas and target populations with disproportionately high rates of type 2 diabetes. Four sites were selected for integrating the intervention with existing programs with capacity to deliver and achieve outcomes in high disparity populations. Sites were selected based on the results of their readiness and capabilities assessments. The intervention targeted three needs: 1) need for culturally appropriate diabetes education targeted to high-disparity, 2) need for on-going support for participants' diabetes self-management, and 3) need for an operationalized model of DSMS for use by others seeking to improve long-term participant outcomes.

The four partners in this case study were all Federally Qualified Health Centers (FQHC). El Rio Community Health Center is located in Tucson, Arizona, Cross Trails Medical Center is located in Cape Girardeau, Missouri, Triad Adult and Pediatric Medicine, Inc. is located in High Point, North Carolina, and FamilyCare Health Center is located in Scott Depot, West Virginia. All FQHCs obtained IRB approval and successfully recruited patients for participation in the study. In addition to these four centers, AADE partnered with the National Center for Farmworker Health (NCFH) in order to create a centralized call center that would provide support for diabetes self-management. Finally, the American Pharmacists Association Foundation (APhAF) also served as a partner

with the role of building a database that allowed for the easy exchange of patient information between sites and the call center to enable individualized DSMS.

### *ASSESSMENT AND PLANNING*

Assessment and planning occurred over the course of 12 months. Within this timeframe, AADE conducted the Phase 2 project planning in coordination with four partner sites. Nationally accredited diabetes self-management education programs were recruited to serve as partner sites. Sites were further selected based on their readiness and capabilities assessment results.

Upon selection and completion of contracts, partners collaboratively finalized logic models and methods for implementation with input from other Together on Diabetes grantees. AADE provided a multi-day planning meeting to evaluate the project procedures, data collection tools, and data analysis plan. Sites then applied for Institutional Review Board approval. The AADE trained partners to implement procedures and protocols to deliver DSME, DSMS, and collect data through multi-day workshops and web-based trainings.

### *INTERVENTION COMPONENTS*

The randomized controlled trial aimed to compare DSME and DSME plus DSMS. Partner sites were required to recruit participants, obtain consent, and assign participants to either the intervention or control group. Patients were invited to participate in the study if the following criteria were met: Adult patient with type 2 diabetes, HbA1c > 8%, English or Spanish speaking. The intervention group received DSME and DSMS whereas the control group only received traditional DSME services. Delivery of the intervention was conducted by a diabetes educator at each site and community resources were leveraged to support participants. All participants complete the DSME curriculum within six months. DSMS was provided to approximately half of the participants (intervention group) for 12 months. The DSMS component consisted of minimal monthly contact with the patient supported and personalized support for diabetes management goals, thus data was collected on all participants on a semi-annual basis.

Table 1. AADE Phase 2 Intervention Components and Elements

INTERVENTION COMPONENTS	SPECIFIC ELEMENTS	MODES OF DELIVERY
Diabetes Self-Management	DSME Curriculum - AADE7 Self-Care Behaviors™ 1. Healthy Eating 2. Being Active 3. Monitoring 4. Taking Medication 5. Problem Solving 6. Reducing Risks 7. Healthy Coping	Diabetes educators at individual sites
Diabetes Self-Management Support	Telephone-based diabetes self-management support <ul style="list-style-type: none"> <li>• Contact at least once a month</li> <li>• Personalized support for diabetes self-management goals</li> </ul>	Call Center Staff

Improve access/linkage to care	<ul style="list-style-type: none"> <li>◆ Follow-up with patients</li> <li>◆ Promoting various DSME course offerings</li> </ul>	<ul style="list-style-type: none"> <li>◆ Email, phone, face-to-face appointments by Health Navigators</li> <li>◆ Letters &amp; flyers developed and disseminated by investigators</li> </ul>
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## STORY OF COMMUNITY TRANSFORMATION

Patient satisfaction with the DSMS intervention component is evident in this story of transformation from the AADE Phase 2 project:

*During the last call with a patient, he shared that he could not have changed his bad habits without the support of Ashley (diabetes educator) and the telephone support from MaryAnn (healthcare navigator). Patient has improved tremendously, for example: 9/15/15: At the time of his 1st follow up call, his A1C was 10.1; 01/2016: A1C was 8.0; 5/2016: A1C was 7.0. This patient is a truck driver and his biggest weakness was eating biscuits and gravy for breakfast. During a call last month, he talked about when he gets a craving for this, he thinks about "MaryAnn" and what we talked about, including healthier food choices; this helps him stay away from the biscuits (it's been over 6 months now). In addition, he goes to the gym at least 2-3x per week (before he would not go at all).*

## EVALUATION RESULTS AND FINDINGS

### Data on Clinical Outcomes

**[Final Data Pending]**

## WHAT WE ARE LEARNING

Key learnings from AADE RCT include the following:

- The need to have patience and tenacity during the partner recruitment process and while troubleshooting technology that is built to support the work.
- Collaboration on methods and implementation procedures is useful for developing the interventions
- It is advantageous to constrain the number of implementation sites in order to reduce variability between sites.
- Employing a single call center ensures the same DSMS intervention is delivered across four partner sites. Additionally, this approach avoided the potential for disruptions (e.g. staff turnover) that may have occurred if each site had to provide DSMS.
- Managing challenges present in long-term clinical trials was facilitated by the support of the call center, database provider, and IRB partners.

Additional factors which may have facilitated success:

- Limiting the number of questionnaires providers have to administer to patients reduces redundancies and the burden within the implementation process
- Using a single IRB for all organizations allows for modifications to occur while avoiding delays caused by requiring approval by multiple IRB partners with varying perspective.

- Implementation of a single database for all sites avoids complications in the data analysis process which occurs when individual sites are required to manage their own data.

### *MOVING FORWARD AND PLANS FOR SUSTAINABILITY*

Because the project engaged FQHCs as partner sites, the opportunity to sustain DSMS and DSME at these providers was advantageous. The AADE will utilize this project to coordinate global expansion in the capacity of community health centers to provide DSME and DSMS to disparity populations. Sustainability plans include collaborating with HRSA and/or NACHC to fund DSME and ongoing DSMS by FQHCs. Group diabetes self-management training (DSMT) services have specific reimbursement policies through Medicare and payment issues may impact long-term sustainability. Individualized sustainability and advocacy plans are to be developed upon understanding site-specific differences in implementation, reimbursement issues, funding mix, and the variety of payers. The following table outlines sustainability tactics or methods being implemented.

TACTICS OF SUSTAINABILITY	SPECIFIC EXAMPLES
1) Share positions and resources with organizations that have similar goals (e.g., staff positions, space, equipment, etc.)	<ul style="list-style-type: none"> <li>◆ Training and resources to utilize the new data collection tools to improve service delivery capacity</li> </ul>
2) Incorporate the initiative’s activities or services into another organization with a similar mission	<ul style="list-style-type: none"> <li>• Training and resources for evidence-based DSME curriculum and model of DSMS implementation at FQHCs</li> </ul>
3) Apply for grants	<ul style="list-style-type: none"> <li>• Collaboration with HRSA and/or NACHC for funding</li> </ul>

### *PROJECT CONTACT INFORMATION*

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### *EVALUATION CONTACT INFORMATION*

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