Establishing a Community-Based DSME Program for Adults with Type 2 Diabetes to Improve Glycemic Control

AN ACTION GUIDE
Diabetes Management
- Diabetes Self-Management Education (DSME): Establishing a Community-Based DSME Program for Adults with Type 2 Diabetes to Improve Glycemic Control—An Action Guide

Physical Activity
- Places for Physical Activity: Facilitating Development of a Community Trail and Promoting Its Use to Increase Physical Activity Among Youth and Adults—An Action Guide
- School-Based Physical Education: Working with Schools to Increase Physical Activity Among Children and Adolescents in Physical Education Classes—An Action Guide
- Social Support for Physical Activity: Establishing a Community-Based Walking Group Program to Increase Physical Activity Among Youth and Adults—An Action Guide

Tobacco-Use Treatment

Suggested citation

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Establishing a Community-Based DSME Program for Adults with Type 2 Diabetes to Improve Glycemic Control

AN ACTION GUIDE

Partnership for Prevention® is a nonprofit organization dedicated to preventing illness and injury and promoting health. Partnership's programs reach policy makers, a wide range of public health and healthcare professionals, businesses, and others who can emphasize prevention.

Partnership for Prevention®
1015 18th Street, NW, Suite 300
Washington, DC 20036
PHONE: 202.833.0009  FAX: 202.833.0113
http://www.prevent.org
Project Advisory Committee

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Georges C. Benjamin, MD, FACP, Chair
Executive Director
American Public Health Association

The Honorable Roderick L. Bremby
Secretary
Kansas Department of Health and Environment

Ned Calonge, MD, MPH
Chief Medical Officer
Colorado Department of Public Health and Environment

Larry Cohen, MSW
Executive Director
Prevention Institute

Jonathan E. Fielding, MD, MPH, MBA
Director and Health Officer
Los Angeles County Department of Public Health

Paul K. Halverson, DrPH, MHSA
Director and State Health Officer
Arkansas Department of Health

Tom Kean, MPH
Executive Director
C-Change

Michelle Kegler, DrPH, MPH
Deputy Director
Emory Prevention Research Center
Associate Professor
Rollins School of Public Health
Emory University

Amy Friedman Milanovich, MPH
Deputy Director
Allies Against Asthma
Center for Managing Chronic Disease
University of Michigan

Marcus Plescia, MD, MPH
Chief
Chronic Disease and Injury Section
North Carolina Division of Public Health

Stephanie Zaza, MD, MPH
Captain, U.S. Public Health Service
Strategy and Innovation Officer
Coordinating Center for Terrorism Preparedness and Emergency Response
Steps Program Director (2003–2006)
National Center for Chronic Disease Prevention and Health Promotion
Centers for Disease Control and Prevention

Contributors

Partnership for Prevention recognizes the following individuals who contributed extensive knowledge and expertise as key informants and reviewers of Diabetes Self-Management Education (DSME): Establishing a Community-Based DSME Program for Adults with Type 2 Diabetes to Improve Glycemic Control—An Action Guide, one of five Action Guides that make up The Community Health Promotion Handbook.

Lawrence Barker, PhD
Associate Director for Science
Division of Diabetes Translation
National Center for Chronic Disease Prevention and Health Promotion
Centers for Disease Control and Prevention

Erica Barrett, MOT, MBA
The Ginn Group
Steps Program
Division of Adult and Community Health
National Center for Chronic Disease Prevention and Health Promotion
Centers for Disease Control and Prevention
Community-Based DSME Program

Sharon A. Brown, PhD, RN, FAAN
James R. Dougherty, Jr. Centennial Professor of Nursing
The University of Texas at Austin

Carol A. Brownson, MSPH
Deputy Director
National Program Office
Robert Wood Johnson Foundation Diabetes Initiative
Washington University School of Medicine in St. Louis

Carl J. Caspersen, PhD, MPH
Associate Director for Science (1998–2006)
Division of Diabetes Translation
National Center for Chronic Disease Prevention and Health Promotion
Centers for Disease Control and Prevention

Alyssa Easton, PhD, MPH
Steps Program Director
Division of Adult and Community Health
National Center for Chronic Disease Prevention and Health Promotion
Centers for Disease Control and Prevention

Edwin B. Fisher, PhD
National Program Director
Robert Wood Johnson Foundation Diabetes Initiative
Professor and Chair
Department of Health Behavior and Health Education
University of North Carolina at Chapel Hill

Martha M. Funnell, MS, RN, CDE
Michigan Diabetes Research and Training Center
Department of Medical Education
University of Michigan Medical School

Russell Glasgow, PhD
Senior Scientist
Institute for Health Research
Kaiser Permanente Colorado

Tracy Ingraham
Northrop Grumman Corporation
Steps Program
Division of Adult and Community Health
National Center for Chronic Disease Prevention and Health Promotion
Centers for Disease Control and Prevention

Jan Norman, RD, CDE
Director
Chronic Disease Prevention Unit
Washington State Department of Health

Susan L. Norris, MD, MPH
Assistant Professor
Department of Medical Informatics and Clinical Epidemiology
Oregon Health and Sciences University

Mary L. O’Toole, PhD
Deputy Director
National Program Office
Robert Wood Johnson Foundation Diabetes Initiative
Washington University School of Medicine in St. Louis

Dawn W. Satterfield, RN, PhD
Native Diabetes Wellness Program
Division of Diabetes Translation
National Center for Chronic Disease Prevention and Health Promotion
Centers for Disease Control and Prevention

Darlene Thomas
Deputy Associate Director for Science
Division of Diabetes Translation
National Center for Chronic Disease Prevention and Health Promotion
Centers for Disease Control and Prevention

Chen-Yen Wang, PhD, CDE, ANP-BC
Associate Professor
School of Nursing
University of Hawaii at Manoa
Acknowledgments

Principal authors from Partnership for Prevention are Mamta Gakhar, MPH; Alyson Hazen, MPH; Hema Khanchandani, MPH, MA; and Amy Stitcher, MPH. Nancy Maddox, MPH, Consultant, served as contributing writer to this Action Guide.

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Introduction

The Community Health Promotion Handbook: Action Guides to Improve Community Health is an important tool, composed of five Action Guides, that translates evidence-based recommendations into the necessary “how to” guidance for implementation of effective community-level health promotion strategies. Although The Community Health Promotion Handbook is designed primarily to assist public health practitioners in implementing evidence-based practices, additional audiences who may benefit from using this resource include local planners, advocates, policy makers, community and business leaders, community-based organizations, educators, healthcare providers, and others interested in improving health in their communities.

The Community Health Promotion Handbook was developed through a collaborative effort between Partnership for Prevention®—a national membership organization dedicated to building evidence of sound disease prevention and health promotion policies and practices and advocating their adoption by public and private sectors—and the Centers for Disease Control and Prevention (CDC). These implementation guidelines have emerged from the experiences of the 40 communities supported by CDC’s Steps Program, which is creating models for how local communities can act to address chronic diseases. The Steps Program’s current focus areas are obesity, diabetes, and asthma, as well as the related risk factors of physical inactivity, poor nutrition, and tobacco use.

All five Action Guides are based on specific health promotion recommendations from The Guide to Community Preventive Services (Community Guide), which is published by the Task Force on Community Preventive Services. This independent decision-making body makes recommendations for the use of various public health interventions on the basis of the evidence of effectiveness gathered in the rigorous and systematic scientific reviews of published studies. Although these recommendations advise on “what to do,” they do not provide the guidance needed to successfully take the interventions “from the page to the field.” Partnership for Prevention and CDC have worked together to bridge this gap between research and practice by developing The Community Health Promotion Handbook.

This Action Guide focuses on a specific approach for implementation of its related Community Guide recommendation. When selecting among effective interventions to improve health outcomes, you should first assess your resources and health priorities. After this up-front analysis is completed and this approach is deemed appropriate and viable for your community’s needs, this Action Guide can be used to facilitate your activities.

The information within this Action Guide is intended to be generalizable to a range of communities, but you will need to determine what modifications may be necessary to meet your local health objectives. Rather than a prescriptive list of required actions, general steps and suggestions are provided in this guide to accommodate the unique aspects of communities and their resources. This Action Guide should be used along with technical assistance offered by experienced organizations, local or state health experts, public health program managers, researchers, or others with relevant expertise.
Introduction

Information in this Action Guide is organized under the following sections and appendixes:

■ Section 1: Overview of the Approach
This section provides information on the Community Guide’s recommendation and the supporting evidence, presents the specific approach used in this Action Guide, describes expected outcomes from implementing the approach, and suggests a role for the reader that both is feasible and maximizes the ability to effect change.

■ Section 2: Implementing the Approach
This section of the Action Guide provides the bulk of implementation guidance by addressing the “who,” “what,” “when,” “where,” and “how” of the activities. Key stakeholders you may want to engage are listed within this section, as well as their related interests and potential roles as partners. Action steps are laid out to follow a general progression, from Getting Started to Moving Forward to Looking Beyond. Although the action steps are numbered to suggest an order of activity you might consider, in practice, many steps will likely occur simultaneously or may occur in a sequence different from what appears in this Action Guide.

■ Appendix A: Determining Your Resource Needs
Personnel, material, and financial resources that may be needed to successfully plan, implement, and sustain the approach are suggested here. You must determine what resources are necessary, ways to obtain those resources, and their costs. In the personnel resources subsection, a table presents a summary of tasks to allocate or assign among the main individuals and groups involved. The material and financial resources subsections each contain a list of items to consider based on the activities described in this Action Guide.

■ Appendix B: Evaluating Your Activities
Evaluation is a crucial component of public health practice and should begin to be addressed during the planning stage. Although it is outside the scope of this Action Guide to provide specific guidance on how to conduct an evaluation, this appendix does provide questions to help you collect data for process and outcome evaluations. Potential sources of data relevant to the approach are also included.

■ Appendix C: References and Resources
Here you will find a list—by topic—of references used in the development of this Action Guide and resources that provide information on similar approaches; tools for planning, implementation, and evaluation; and general guidance.

■ Appendix D: Glossary of Selected Terms
Words that are listed in this appendix are italicized in the guide’s text whenever they are used in order to alert you that a definition is provided.
Overview of the Approach

The Evidence

Research has shown that community-based diabetes self-management education (DSME) is an effective intervention for improving glycemic control among adults of various racial and ethnic backgrounds with type 2 diabetes. The goals of DSME are to improve metabolic control and quality of life, to reduce diabetes-related complications, and to minimize healthcare costs. Community-based DSME—offered in settings outside the home, clinic, school, or worksite—can include such diverse community gathering places as community centers, libraries, private facilities, and faith-based institutions. It is typically delivered by health professionals and public health practitioners and should include coordination with an individual’s primary care provider and any diabetes education received in a clinical setting.

Diabetes self-management education is an interactive, collaborative process that can equip adults with basic knowledge to manage their type 2 diabetes while focusing on their self-identified problems and goals. It emphasizes problem solving and decision making as they relate to core diabetes self-care skills such as healthy eating, physical activity, proper dental care, and monitoring blood glucose level. Community-based DSME—with its emphasis on convenient locations, community support, and cultural relevance to participants—is especially important for reaching people who have limited access to formal healthcare, do not speak English, or may not have the option of home-, clinic-, school-, or worksite-based diabetes education.

The Task Force on Community Preventive Services (TFCPS) recommends that DSME be offered in community gathering places to help adults with type 2 diabetes manage their disease and improve their glycemic control. This recommendation is based on sufficient evidence of effectiveness found through a systematic review of published studies conducted by a team of experts on behalf of the TFCPS. Information on their recommendation, published in The Guide to Community Preventive Services: What Works to Promote Health? (Community Guide), is presented in Table 1 on page 5. Related publications by the TFCPS and reviews by other organizations are listed under “Evidence-Based Reviews of DSME in Community Gathering Places” in Appendix C: References and Resources.

Information presented in this Action Guide also incorporates the latest recommendations of the task force charged with reviewing and revising the National Standards for DSME. The task force was jointly convened by the American Association of Diabetes Educators and the American Diabetes Association, with additional representation from other key organizations and federal agencies within the diabetes education community. According to the updated National Standards for DSME, published in June 2007 (http://care.diabetesjournals.org/cgi/content/full/30/6/1630), “DSME is a critical element of care for all people with diabetes and is necessary in order to improve patient outcomes. The National Standards for DSME are designed to define quality diabetes self-management education and to assist diabetes educators in a variety of settings to provide evidence-based education.” The following principles were used to guide the review and revision of the national standards: "1) Diabetes education is effective for improving clinical outcomes and quality of life, at least in the short-term. 2) DSME has evolved from primarily didactic presentations to more theoretically-based empowerment models. 3) There is no one ‘best’ education program or approach; however, programs incorporating behavioral and psychosocial strategies demonstrate improved outcomes. Additional studies show that culturally- and age-appropriate programs improve outcomes and that group education is effective. 4) Ongoing support is critical to sustain progress made by participants during the DSME program. 5) Behavioral goal-setting is an effective strategy to support self-management behaviors.”
Section 1—Overview of the Approach

The Approach

This Action Guide focuses on assisting local public health practitioners in improving glycemic control of adults with type 2 diabetes through the following approach: establishing a community-based DSME program. On the basis of an assessment of their resources and community’s needs, public health practitioners committed to helping adults in their community better manage their diabetes may find this approach to be appropriate and viable.

Expected Outcomes

Communities that successfully establish one or more community-based DSME programs targeting adults with type 2 diabetes can expect to see the following results:

- These programs will help adults of various ages and racial or ethnic backgrounds develop appropriate diabetes management knowledge and skills.
- Among participants, glycemic control will improve, potentially leading to a decrease in diabetes-related complications and premature death.

Implementing this approach can be useful in addressing diabetes objectives of the national Healthy People 2010 initiative, such as increasing the proportion of adults with diabetes 1) who receive formal diabetes education and 2) who perform blood glucose level self-monitoring at least once daily.

Your Role

As a public health practitioner, your role in providing DSME will depend on the needs of your community and the resources and capacity you have to establish a community-based DSME program. An effective DSME program requires thorough planning and organization; therefore, one option for you to consider is to oversee the planning, implementation, and evaluation of the DSME program if, as recommended in the 2007 National Standards for DSME, you have academic or experiential preparation in chronic disease care and education and in program management. The role of program coordinator is the focus of this Action Guide.
Section 1—Overview of the Approach

| Table 1: Highlights of Community Guide’s Recommendation |

**Recommendation**
Diabetes Self-Management Education in Community Gathering Places for Adults with Type 2 Diabetes—Sufficient Evidence of Effectiveness

**Findings**
Diabetes self-management education for people 18 years of age or older can be provided in such community gathering places as community centers, libraries, private facilities (e.g., cardiovascular risk reduction centers), and faith-based institutions. Although recommended for improving glycemic control, the interventions reviewed were rarely coordinated with the individual’s clinical care provider, and the nature and extent of care in the clinical setting was unclear. These interventions should be coordinated with the individual’s primary care provider and are not meant to replace education delivered in the clinical setting.

**Effectiveness**
- Diabetes self-management education in community gathering places is effective in decreasing glycohemoglobin (GHb) by approximately 2 percentage points.

**Applicability**
- These findings should be applicable to adults with type 2 diabetes, with a range of racial and ethnic backgrounds, in a variety of settings.
- Applicability may be limited, however, because study populations were self-selected, had high attrition rates, and had high baseline glycohemoglobin (GHb) levels.

**Additional Considerations**
- TFCPS reviewed DSME interventions in which people aged 18 or older were educated in settings outside the home, clinic, school, or worksite because clinic settings may not be ideal for DSME, the home setting is conducive only to individual and family teaching, and the worksite is available only to people who work outside the home. Thus, DSME in community gathering places may reach people who would not normally receive this education. Community interventions often offer the benefit of cultural relevance, possibly because the diverse learning styles of different cultures are better addressed in the community setting. The increased cultural relevance may increase acceptance of diabetes education. Interventions in community gathering places also may be more convenient, especially for those in rural areas, and may thus promote attendance.
- TFCPS identified potential barriers to implementing these interventions. In community settings, it may be difficult to find people who should receive DSME training. Participants are generally self-selected, and more general recruitment may be difficult. Another issue may be coordinating these interventions with the patient’s primary care team.

**Source**
Table 2 summarizes the action steps that are recommended for successfully establishing a diabetes self-management education (DSME) program in your community. The numbering of action steps is meant only to suggest an order of activity you might consider; in practice, there is no exact order to the steps—many steps will likely occur simultaneously or may occur in a sequence different from what appears in this Action Guide. In addition, the timeline for completing each step is highly dependent on a community’s particular circumstances. Use this Action Guide to inform and direct your activities, making sure to seek additional technical assistance with your efforts and realizing that you will need to determine how these steps best fit your community.

### Table 2: Action Steps for Establishing a Community-Based DSME Program for Adults with Type 2 Diabetes to Improve Glycemic Control

<table>
<thead>
<tr>
<th>Getting Started</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>Action Step 9—</td>
<td>Collaborate with the advisory board and instructional staff to review and refine your program evaluation activities and to develop your continuous quality improvement plan.</td>
</tr>
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<td>Action Step 10—</td>
<td>Publicize the DSME program throughout the community to raise awareness and register interested members of your target audience.</td>
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<tr>
<td>Action Step 11—</td>
<td>Organize an orientation session for all program staff.</td>
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<td>Action Step 12—</td>
<td>Begin providing DSME classes.</td>
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<tr>
<td>Action Step 13—</td>
<td>Ensure that instructional staff members receive appropriate and ongoing training in diabetes management and in teaching and counseling skills.</td>
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<td>Action Step 14—</td>
<td>Explore methods for sustaining and disseminating the DSME program.</td>
</tr>
</tbody>
</table>

Boxes marked with this lightbulb icon present tips, ideas, and additional information on implementing an action step and may also provide Web site links to helpful resources.

Boxes marked with this hurdler icon describe possible obstacles that may occur during implementation and offer suggestions for successfully overcoming those hurdles.
Getting Started

As you progress through the steps in this Action Guide, you may wish to consult experienced organizations—such as the ones noted here—for additional information about implementing a DSME program.

- American Association of Diabetes Educators offers resources, teaching and evaluation tools for diabetes educators, information on locating a diabetes educator in your area, and links to continuing education opportunities at http://www.diabeteseducator.org.
- American Diabetes Association provides a wealth of information and tools for consumers, researchers, and health professionals; steps to apply for DSME program recognition; and an online bookstore at http://www.diabetes.org.
- Division of Diabetes Translation at the Centers for Disease Control and Prevention (CDC) provides data and trends on diabetes, a variety of informational materials (e.g., fact sheets, brochures, reports), and links to diabetes projects at http://www.cdc.gov/diabetes.
- Indian Health Service’s Division of Diabetes Treatment and Prevention offers DSME program recognition and a variety of educational materials tailored for American Indians and Alaska Natives at http://www.ihs.gov/MedicalPrograms/Diabetes/index.asp.

Also, it is strongly encouraged that you become familiar with the latest version of the National Standards for DSME (at http://care.diabetesjournals.org/cgi/content/full/30/6/1630) and integrate, wherever appropriate, its recommendations into your program as you progress through the action steps in this guide.

Action Step 1—Conduct a comprehensive community assessment to learn about existing diabetes education resources in your area, gaps in those resources, and the self-perceived needs of your target audience. The results of this assessment will help to determine the best way to move forward in establishing a DSME program in your community. You may want to contact your local health department to see if a community assessment has already been conducted.

Consider the following activities to learn about existing diabetes education resources in your area and to determine any gaps in available resources:

- Identify existing diabetes education resources and DSME programs serving your community. Arrange interviews with program staff of these DSME programs to find out what services they offer, who uses them, and with what frequency. You may want to use these interviews to determine whether racial or ethnic groups in your community are using available services and to gather staff recommendations on key diabetes education resources.
The following organizations should be good sources of information on existing diabetes education resources in your area:

- Local medical centers and physician practices serving patients with diabetes.

The Diabetes Initiative of the Robert Wood Johnson Foundation has developed a framework of key “resources and supports for diabetes self-management (RSSM)” (http://www.ajph.org/cgi/content/abstract/95/9/1523). You may want to consider the extent to which existing diabetes education programs offer the following resources and supports to their participants:

- An individualized assessment of medical history, health beliefs, diabetes knowledge, self-management skills and behaviors, readiness to learn, cognitive ability, physical limitations, family support, and financial status.
- Collaborative goal setting, with ongoing assessment of progress and appropriate revision of goals.
- Education on concrete behaviors and skills such as how to read food labels, test blood glucose level, or engage in healthy coping.
- Ongoing follow-up and support, including routine contacts (if desired) and “as needed” options for patients with self-management questions.
- Community resources, such as farmers markets and safe walking paths, to support effective diabetes self-management.
- Linkage to the healthcare system to promote continuity of care.

➤ Ask healthcare providers what they would like to see in the community with respect to diabetes support, how they envision their role, and how they may contribute their knowledge, skills, and resources.

Healthcare providers are sometimes reluctant to work with community-based programs because they may be unsure of the quality of advice that such programs provide and because they may want to protect their role as providers of diabetes education. To help gain early support during your assessment, emphasize that your goals include helping patients to follow prescribed medical advice and continue their medical care. Once your program is underway, follow through by securing participants’ written consent to notify their healthcare providers of their involvement with the DSME program, results of physiologic measures (e.g., hemoglobin A1c, blood pressure) taken as part of the program, and their progress in meeting their diabetes self-management goals.
Section 2—Implementing the Approach

➤ Identify resources in your community that could be useful for residents with diabetes, such as clinics and nutrition services. Also identify potential places for physical activity including parks and other walking areas, local recreational facilities, and community centers.

➤ Reach out to community leaders to gain insight about the need for increased health education, as well as the strengths of the community in providing support for DSME.

Consider the following activities to learn about the self-perceived needs of your target audience and to further determine any gaps in available resources:

➤ Carefully determine your target audience because both the structure and scope of the program will be geared to the needs of intended program participants. Standard 3 of the 2007 National Standards for DSME notes that “clarifying the target population and determining its self-management educational needs serve to focus resources and maximize health benefits.” Many DSME programs fail to tailor education to the needs and interests of participants. A program for working moms, for example, might be structured differently than a program for recent retirees. Programs that tailor education to community members and incorporate time for participant input from the initial stages of development throughout the life of the program are more likely to actively engage participants.

➤ Conduct focus groups or one-on-one interviews with prospective program participants and their families. These discussions may help you to better understand the current level of basic diabetes knowledge of prospective participants; their perceived success with diabetes self-management; what prospective participants want out of a DSME program; their previous experience with diabetes education; and personal and environmental barriers to improved diabetes self-management and program participation (e.g., transportation and time constraints; child care needs; family, cultural, and community practices; poor access to clinical care; lack of social support, high-quality foods, and physical activity opportunities).

Information on conducting focus groups can be found at http://www.managementhelp.org/evaluatn/focusgrp.htm and http://www.sph.umn.edu/img/assets/18528/FocGrp_Conducting.pdf.

Many tools exist to assess diabetes knowledge, perceived barriers to self-management, and psychosocial issues related to diabetes that you may find helpful when assessing your potential target audience, such as

■ Diabetes Concerns Assessment Form
  Developed by the Michigan Diabetes Research and Training Center and available on request at http://www.med.umich.edu/mdrtc/profs/index.htm.

■ Diabetes Distress Scale

■ Diabetes Self-Efficacy Scale and other self-assessment scales
  Developed by the Stanford Patient Education Research Center and available at http://patienteducation.stanford.edu/research/index.html in both English and Spanish.

■ Spanish Language Diabetes Knowledge Questionnaire
Section 2—Implementing the Approach

■ **Action Step 2**—Begin organizing the human, material, and financial resources you will need for establishing a DSME program.

➤ Refer to Appendix A: Determining Your Resource Needs for information on personnel, material, and financial resources that may be needed to successfully plan, implement, and sustain the program. Make these determinations during the upcoming action steps as you establish the scope of your activities.

■ **Action Step 3**—Engage existing partners and key stakeholders by informing them about your plans to develop a DSME program and educating them about its benefits.

➤ Success in implementing this approach will depend on forming good relationships with various stakeholders who are invested in DSME. Certain partners and stakeholders may be key decision makers whose influence within and understanding of the community are essential throughout program planning, implementation, and evaluation. Types of stakeholders that you may choose to partner with are listed in Table 3. Some communities may have many stakeholders and others may have only a few. When deciding how to engage different types of stakeholders, consider the potential role that each can and will want to play on the basis of their interests relating to diabetes education.

### Table 3: Stakeholders’ Related Interests and Their Possible Roles as Partners

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Related Interests</th>
<th>Roles as a Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult residents with type 2 diabetes and their families</td>
<td>Reduced diabetes-related complications and improved quality of life</td>
<td>Identify diabetes self-management needs, potential program barriers, and strategies for success</td>
</tr>
<tr>
<td></td>
<td>Improved diabetes self-management</td>
<td>Help to recruit new program participants</td>
</tr>
<tr>
<td></td>
<td>Reduced barriers to participation in DSME classes (e.g., convenient time and location)</td>
<td>Serve as peer mentor or “buddy”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Serve on program advisory board</td>
</tr>
<tr>
<td>Existing diabetes education and general patient education programs in clinical or community settings</td>
<td>Ongoing program improvement</td>
<td>Inform community assessment</td>
</tr>
<tr>
<td></td>
<td>Participant satisfaction</td>
<td>Contribute staff time to DSME program</td>
</tr>
<tr>
<td></td>
<td>Quality diabetes education</td>
<td>Sponsor DSME program</td>
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<tr>
<td></td>
<td>Adequate program funding</td>
<td>Provide educational resources</td>
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<td></td>
<td>Serve on program advisory board</td>
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<tr>
<td>Physicians</td>
<td>Quality of community-based DSME</td>
<td>Refer patients to DSME program and monitor patients’ outcomes</td>
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<td></td>
<td>Preservation of role as definitive source of diabetes information</td>
<td>Reinforce value of patient participation in DSME program</td>
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<td></td>
<td>Patient implementation of self-care regimens and achievement of targeted clinical outcomes</td>
<td>Provide clinical care for patients with diabetes</td>
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<td></td>
<td>Improved patient health</td>
<td>Serve on program advisory board</td>
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<tr>
<td>Other health professionals, including diabetes educators</td>
<td>Quality diabetes education</td>
<td>Identify common diabetes self-management problems and important educational messages</td>
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<td></td>
<td>Improved patient health</td>
<td>Oversee curriculum development</td>
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<td>Support of community health workers</td>
<td>Organize or teach DSME classes</td>
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<td>Supervise or train other program staff (e.g., community health workers)</td>
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<td>Identify local DSME resources</td>
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<td>Serve on program advisory board</td>
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<th>Stakeholders</th>
<th>Related Interests</th>
<th>Roles as a Partner</th>
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| Community health workers                                                     | ■ Empowerment of community members  
■ Improved public health                                                           | ■ Provide support services for DSME curriculum  
■ Provide behavioral and emotional support to participants  
■ Link participants to healthcare resources  
■ Serve on program advisory board                                               |
| Local and national diabetes organizations                                     | ■ Diabetes prevention and management                                                | ■ Identify DSME resources and events  
■ Provide educational materials and expertise  
■ Serve on program advisory board                                                |
| Schools of nursing, public health, preventive medicine, social work, dentistry, pharmacy, and health education, and other schools involved with diabetes-related issues | ■ Student training  
■ Community-based research  
■ Improved public health                                                           | ■ Provide students or faculty to assist with DSME program planning and delivery  
■ Serve on program advisory board                                                |
| Local and state health departments                                            | ■ Improved public health                                                             | ■ Refer resources and leadership  
■ Refer people to DSME program and provide supporting education services  
■ Serve on program advisory board                                                |
| Cooperative extension service office                                          | ■ Improved community health and nutrition                                           | ■ Provide nutrition educators or diabetes nutrition education resources  
■ Serve on program advisory board                                                |
| Community leaders                                                             | ■ Community health promotion  
■ Recognition for role in supporting program                                         | ■ Provide material resources to support DSME program  
■ Help to promote the DSME program  
■ Serve on program advisory board                                                |
| Employers                                                                     | ■ Reduced employee healthcare costs resulting from improved glycemic control for employees with diabetes | ■ Promote DSME program to employees  
■ Serve on program advisory board                                                |
| Local businesses                                                              | ■ Good community relations  
■ Promotion of products and services                                               | ■ Contribute donations to support program (e.g., store coupons for incentives, glucose monitoring supplies)  
■ Support diabetes self-management goals through products and services            |
| Local media (television, radio, newspaper, Internet)                           | ■ News coverage of local issues  
■ Public service announcements                                                     | ■ Inform the public about DSME program and promote its use |

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- After you have identified key stakeholders in your community, determine the best way to educate these individuals and groups about your plans. For example, you might decide to invite them to an informational session about the DSME program you hope to establish. Also consider providing information at local health promotion events about the importance of DSME and how a community-based DSME approach can benefit the community. Continue to communicate these benefits throughout your ongoing activities.

- **Action Step 4**—Bring together committed partners and stakeholders in the form of an advisory board to oversee the DSME program, and begin planning for the evaluation component.

- Establish an advisory board. Members might include community leaders; certified diabetes educators and other health professionals—such as physicians, nurses, dietitians, and pharmacists—who frequently assist or treat people who are diabetic; community members who have diabetes or have a family member with diabetes; and other stakeholders listed in Table 3. Advisory boards are helpful in achieving buy-in from important partners and stakeholders, in helping to ensure a program that is relevant to participants, and in advocating for improved environmental supports for those with diabetes, such as better resources for healthy diet and physical activity. The advisory board can also help ensure that the DSME program has “documentation of its organizational structure, mission statement, and goals,” as noted in standard 1 of the 2007 National Standards for DSME.

When creating a working group to oversee your program’s activities, be aware that advisory boards are mandatory for DSME programs seeking formal recognition by the American Diabetes Association (ADA) or the Indian Health Service (IHS)—a prerequisite for Medicare reimbursement. This requirement is in keeping with standard 2 of the 2007 National Standards for DSME, which states that “The DSME entity shall appoint an advisory group to promote quality.” For information about the ADA recognition program, visit http://professional.diabetes.org/Recognition.aspx. For information about the IHS recognition program, visit http://www.ihs.gov/MedicalPrograms/Diabetes/index.cfm?module=programsIDERP.

- Identify people with experience in program planning, implementation, and evaluation who may be able to serve in leadership roles on the advisory board. Appendix A: Determining Your Resource Needs provides you with a basic list of advisory board tasks that are identified in the action steps of this guide.

- Start to draft an evaluation plan with the advisory board for assessing your program and the outcomes of using this community-based DSME approach to improve participants’ glycemic control. Action Step 9 addresses the need to review and refine your evaluation activities when you have entered the “moving forward” stage. Although specific guidance on conducting an evaluation is outside the scope of this Action Guide, you will find information within this guide to help you prepare for and develop an evaluation plan. Review Appendix B: Evaluating Your Activities for the types of questions to ask to guide you in gathering process and outcome data for program evaluation needs. Refer also to “Resources for Developing an Evaluation Plan” in Appendix C: References and Resources.

- Hold advisory board meetings at regular intervals to address program development tasks. Beyond program implementation, the advisory board will need to convene periodically to review and evaluate program performance and make recommendations.
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Action Step 5—Work with the advisory board to make decisions about the structure and scope of the DSME program. Both the structure and scope of the program should be geared to the needs of intended program participants, as determined by your community assessment in Action Step 1. You may want to review existing DSME curricula (discussed in Action Step 7) for ideas on structure and scope of your program.

Through the following activities, determine the structure of your DSME program—whether it will be based on a partnership or sponsorship or be independent—and identify the existing funding and funding opportunities available through this structure.

➤ Determine how your program can complement existing DSME resources. For example, a nearby hospital or university medical center that runs a comprehensive diabetes education program may be interested in expanding to a community-based site. Or you could assist an established DSME program by providing follow-up and support services.

➤ Discuss the pros and cons of collaborating with an existing organization. Because diabetes is a medically complex disease, your program will likely benefit from partnership with or sponsorship by healthcare professionals. Consider approaching a health-related organization such as a nursing school, Veterans Affairs medical center, or primary care setting about assuming partial ownership of the DSME program. Be aware that partnering with an existing organization may provide your community-based program with resources (e.g., funding, instructional and administrative staff) and a supportive infrastructure, but you may have less control over certain program aspects such as choosing a curriculum.

➤ Discuss the pros and cons of developing a new program. Perhaps you found during your initial assessment that a need exists for an entirely new program, albeit one that coordinates with existing medical and educational resources. Be aware that starting a new program may grant greater autonomy but could be more difficult and take longer to get up and running.

➤ Research potential sources of financial and other support. Hospitals, medical centers, or academic training programs for clinicians may choose to sponsor your program, whether through a partnership or other mechanism. Other sources of general funding or in-kind support include local charities and foundations, pharmaceutical companies, public health agencies, local businesses, faith-based institutions, and community groups. Based on the structure of your DSME program, develop and pursue a plan for obtaining funding through grants, Medicare reimbursement (requires formal program recognition by ADA or IHS—discussed in Action Step 14), or other sources of financial support.

➤ Make your final decision about the program’s structure and its financial support on the basis of what best meets the specific needs of your community, your target audience, the intended scope of the program, and your resources.

Concurrently, take into account the target audience and the program’s structure and financial support when developing options for the scope of the program.

➤ Identify the intended scope of the DSME provided through your community-based program. A program can be comprehensive and cover content areas recommended in standard 6 of the National Standards for DSME to help participants manage their type 2 diabetes. Other types of DSME programs are narrower in scope and either supplement existing DSME resources and programs or address specific elements of successful self-management behavior (e.g., programs that focus on physical activity education, nutrition education, social support for lifestyle changes, or healthy coping skills).
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If interested in starting a walking group as a component of your DSME program to encourage physical activity, refer to another Action Guide in The Community Health Promotion Handbook, entitled Social Support for Physical Activity: Establishing a Community-Based Walking Group Program to Increase Physical Activity Among Youth and Adults (http://www.prevent.org/actionguides).

Action Step 6—Work with the advisory board to recruit instructional and administrative staff. Your staffing needs will be partly determined by the structure and scope of your DSME program, which were addressed in Action Step 5. After establishing your core instructional team and selecting your curriculum, additional instructional staff can be recruited if it is determined that other expertise or credentials are needed in presenting portions of the selected curriculum.

- Identify individuals who can perform administrative tasks in support of your program, as discussed in the personnel subsection of Appendix A: Determining Your Resource Needs.

- Identify individuals who can serve as instructors to deliver the program content. Follow up with hospitals, clinics, medical centers, and existing diabetes programs visited during your community assessment for recommendations on available instructors. Instructional staff should have expertise in specific content areas pertaining to diabetes, appropriate interpersonal skills, and proficiency in teaching and communications techniques. In standard 5 of the 2007 National Standards for DSME, it is recommended that a registered nurse, registered dietitian, and/or pharmacist take a lead role in preparing and delivering the DSME, and that all instructional staff will have “recent educational and experiential preparation in education and diabetes management or will be certified diabetes educators.” Comprehensive DSME programs often rely on a multidisciplinary team of health professionals to collaborate in overseeing curriculum development and in teaching content areas. Regardless of your program’s curriculum, identify backup instructors who can take over if a primary instructor is temporarily unavailable, drops out of the program altogether, or finds the content outside his or her scope of practice and expertise.

Consider recruiting community health workers who can provide services to support your DSME curriculum and can also offer ongoing diabetes self-management support to participants. In many communities, community health workers are considered important promoters of healthy lifestyles who provide culturally appropriate health education; help individuals with diabetes to problem solve when incorporating self-management routines into their lifestyle; lead activities such as exercise groups; recruit new participants into the program; help individuals access healthcare; provide encouragement, informal counseling, and social support; and perform other valuable services. Community health workers can make substantial contributions to DSME programs, but must receive appropriate training and supervision to effectively support participants and your program.
Action Step 7—Work with the advisory board and instructional staff to develop, review, and refine the DSME curriculum.

Research existing DSME curricula and diabetes education materials, with particular focus on curricula that have been determined to be effective through evidence-based research. Decide whether you want to develop a new curriculum or use an existing curriculum that you will tailor to program participants’ needs, health beliefs, cultural influences, and functional health literacy level. By modifying an existing DSME curriculum to meet program needs, you may be able to save your group time and money.

The resources listed below are examples of DSME curriculum that may be appropriate for your program participants. Some curricula are free, whereas others require purchase.

- *Life with Diabetes: A Series of Teaching Outlines by the Michigan Diabetes Research and Training Center* can be used to design and implement DSME classes. For more information on this curriculum, which is published and sold by the American Diabetes Association, go to [http://www.med.umich.edu/mdrtc/profs/index.htm](http://www.med.umich.edu/mdrtc/profs/index.htm).


- Washington State University has a free nutrition-focused curriculum consisting of an introduction and four lessons. Access this curriculum at [http://nutrition.wsu.edu/diabetes/lwd.html](http://nutrition.wsu.edu/diabetes/lwd.html).

- The Native American Diabetes Project’s “Strong in Body and Spirit” DSME curriculum, which incorporates American Indian culture, can be obtained at [http://www.laplaza.org/health/dwc/nadp](http://www.laplaza.org/health/dwc/nadp).

- The Stanford Patient Education Research Center developed the “Tomando Control de su Diabetes” DSME curriculum for Spanish-speaking people with type 2 diabetes. Workshops are facilitated by leaders using a detailed manual (training and licensing required). An English version is also available. For more information, go to [http://patienteducation.stanford.edu](http://patienteducation.stanford.edu).

Refer to the following publications for information on effective strategies for teaching DSME:


- *The Art of Empowerment: Stories and Strategies for Diabetes Educators, 101 Tips for Diabetes Self-Management Education, and 101 Tips for Behavior Change in Diabetes Education* are examples of resources from the American Diabetes Association (ADA). For information on these books, visit the ADA’s bookstore at [http://store.diabetes.org](http://store.diabetes.org).
When determining the curriculum for your DSME program, review standards 6–9 of the 2007 National Standards for DSME for information on developing a curriculum that reflects current evidence and practice guidelines, conducting an assessment of each participant’s educational needs, developing—with participant involvement—an individualized education plan and an ongoing self-management support plan, and measuring attainment of participant-defined goals and participant outcomes at regular intervals.

According to the national standards, assessed needs of the participant should be used to determine which of the following content areas are to be provided:

- Describing the diabetes disease process and treatment options.
- Incorporating nutritional management into lifestyle.
- Incorporating physical activity into lifestyle.
- Using medication(s) safely and for maximum therapeutic effectiveness.
- Monitoring blood glucose level and other parameters and interpreting and using the results for self-management decision making.
- Preventing, detecting, and treating acute diabetes-related complications.
- Preventing, detecting, and treating chronic diabetes-related complications.
- Developing personal strategies to address psychosocial issues and concerns.
- Developing personal strategies to promote health and behavior change.

These content areas incorporate the following seven diabetes self-care behaviors that have been identified by the American Association of Diabetes Educators as key to effective diabetes self-management: 1) healthy eating, 2) being active, 3) monitoring, 4) taking medication, 5) problem solving, 6) reducing risks, and 7) healthy coping. Refer to the AADE7™ Self-Care Behaviors framework, at http://www.diabeteseducator.org/ProfessionalResources-AADE7, to learn more about these self-care behaviors, ways to measure them, and how to use the measures when assessing how well the DSME program has been implemented.

In addition to lessons that teach participants skills for enhancing self-efficacy (e.g., personal goal setting, collective problem-solving to overcome self-identified barriers to diabetes self-management) and overcoming psychosocial factors that may hinder diabetes self-management, consider lessons that teach participants skills for advocating environmental changes that support diabetes self-management (e.g., access to quality food) to public officials and healthcare systems.

Make decisions on items relating to curriculum delivery, including class size, frequency, and length; lesson format; and educational strategies for teaching adults (such as engaging participants through culturally appropriate examples). Plan to avoid lectures and instead rely on formats that allow for peer discussion and support. Although little research exists on the optimal frequency of DSME,
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a typical program might consist of one to two meetings per week for eight weeks with booster sessions or telephone follow-up to problem solve any issues arising beyond program conclusion. Set a standard, but remember that once your program is underway, class participants can help to decide what approaches, frequency, and methods work best for them.

Use multiple components to increase the overall effectiveness of your program when developing your curriculum. Single-component programs (e.g., cooking demonstrations), particularly those that rely heavily on lectures, tend to be less effective than multicomponent programs (e.g., cooking demonstrations plus the following activities: guided grocery store tours, moderated group problem-solving sessions, and self-directed diet action plans).

DSME that is not culturally relevant may be less appealing to your participants, potentially resulting in low attendance rates. To increase your program's appeal, ensure that it is culturally inclusive, sensitive, and supportive, and that instructors understand participants' health beliefs, cultural norms, and values. Convey information in participants' preferred language and at an appropriate reading level, integrate ethnic food preferences into nutrition education and cooking demonstrations, and feature individuals of the same racial or ethnic group in graphics and videos. Examples of activities that are culturally relevant may include framing educational sessions as social events with meals and family participation (such as incorporating African-American food traditions) and using stories as teaching tools (such as incorporating a traditional American Indian practice to pass on knowledge).

➤ Present the initial curriculum to the advisory board for review and to receive suggestions for improvement. Make changes as necessary to ensure clarity, appropriateness of outcome measures, and integration of content areas relevant to your target audience.

➤ Conduct focus groups or in-depth interviews with your target audience to generate feedback on the curriculum and any instructional materials. Ask community health workers or other staff with ties to the community for help in arranging focus groups and interviews and in recruiting participants. Provide any training needed for staff to conduct these sessions.

➤ If time and resources allow, pilot test key parts of the program with a small group of prospective participants. Use feedback to revise the curriculum and relevant materials as appropriate.

➤ Consider building a library of diabetes education materials that are in your participants’ language and reflect their culture to supplement your DSME curriculum.

Diabetes education materials written in languages other than English can also be found on the Internet. For example, CDC (at http://www.cdc.gov/diabetes/spanish/pubs.htm) and the Diabetes Initiative of the Robert Wood Johnson Foundation (at http://diabetesnpo.im.wustl.edu/resources/SpanishMaterial.html) provide materials in Spanish. The National Diabetes Education Program has materials available in several languages (at http://www.ndep.nih.gov/diabetes/pubs/catalog.htm) and provides links to other Web sites that have translated materials in a variety of languages (at http://www.cdc.gov/diabetes/ndep/lang.htm).
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■ Action Step 8—Help to secure a community gathering place for DSME classes.

➤ Choose a location for classes that is acceptable and easily accessible to your participants. It should offer the resources (e.g., adequate space, basic kitchen facilities) needed to implement your curriculum and have dependable availability at scheduled meeting times. Community centers, faith-based institutions, libraries, and private facilities (e.g., cardiovascular risk reduction centers) are potential sites for your program. Locations may have been identified during your community assessment, but your advisory board may offer additional suggestions. Discuss any applicable rental or use procedures with the appropriate individuals at your chosen location. Many existing community-based DSME programs have been successful at securing space free of charge or for a nominal fee.

Community-based DSME programs tend to reach a small proportion of the total target population. Reasons for poor turnout include unacceptable or inaccessible locations and lack of transportation for participants to attend DSME classes. Anticipating obstacles to participation and planning how to overcome them should help to increase turnout once your program gets started. Choose a convenient location that does not require participants to cross perceived geographic or cultural boundaries. Promote ride sharing among participants if appropriate. Your program’s administrative staff can also help to identify local transportation services for participants in need of assistance with getting to and from DSME classes. Look to local businesses, hospitals, or faith-based institutions for assistance with arranging transportation for participants through reduced bus or subway fares or a van service. Encouraging participants to bring family or friends may also alleviate transportation issues, as well as provide social support.

Moving Forward

After a careful planning process that included conducting a community needs assessment, reaching out to stakeholders, creating an advisory board, determining the structure and scope of the program, recruiting staff, developing and refining a curriculum, and finding a suitable location for classes, your DSME program is almost ready to be launched! Look at the activities outlined below to gain insight into how to ensure a successful start.

■ Action Step 9—Collaborate with the advisory board and instructional staff to review and refine your program evaluation activities and to develop your continuous quality improvement plan.

➤ Complete the development of your evaluation plan that was begun in Action Step 4, even though you may need to continue to refine certain aspects as the program progresses. As discussed earlier in Action Step 4, review Appendix B: Evaluating Your Activities for the types of questions to ask to guide you in gathering process and outcome data for project evaluation needs. Refer also to “Resources for Developing an Evaluation Plan” in Appendix C: References and Resources.

➤ Be aware that many diabetes education authorities recommend implementing a continuous quality improvement process that entails ongoing program refinement. This process will help ensure that the program remains relevant and responsive to current and future participants. According to standard 9 of the National Standards for DSME, “The DSME entity will measure attainment of patient-defined goals and patient outcomes at regular intervals using appropriate measurement techniques to evaluate the effectiveness of the educational intervention.” In addition, according to standard 10, “The DSME entity will measure the effectiveness of the education process and
determine opportunities for improvement using a written continuous quality improvement plan that describes and documents a systematic review of the entities’ process and outcome data.”

➤ As part of the evaluation process, develop protocols and tools for collecting baseline and post-program data, indicating which staff will collect the data and the time frame for data collection. For example, you may want to try to improve participant hemoglobin A1c levels as a method of measuring change in glycemic control. To do this, you can ask participants to consult with their primary care providers to collect a baseline hemoglobin A1c value. This value can then be assessed again at an appropriate time to measure change resulting from program participation. [Note: If you intend to collect data on physiologic measures (e.g., hemoglobin A1c, blood pressure), the results should be reported not only to the participant but also to the participant’s primary healthcare provider with his or her written consent.]

➤ As part of the continuous quality improvement process, encourage staff to be creative in developing and tailoring program components both for the target population as a whole and for individual participants. After DSME classes begin, plan to 1) make random, unannounced visits to classes to ensure that the DSME is being delivered according to plan and that program implementation is running smoothly, 2) distribute short surveys to program participants to assess their level of satisfaction with the program and to offer suggestions for improvement because participant feedback is a critical source of information for making program adjustments, and 3) meet regularly with program staff to discuss ideas for sustaining participant interest and to identify any problems that may have arisen.

➤ Plan to work with the program staff and advisory board to troubleshoot any problems identified during either the evaluation process or the continuous quality improvement process and make necessary revisions to program content and delivery in order to maximize program effectiveness.

Action Step 10—Publicize the DSME program throughout the community to raise awareness and register interested members of your target audience.

➤ Use information obtained from the community assessment and input from your advisory board to develop promotional messages about the DSME program. Develop marketing materials that describe your program and the benefits of participation; be sure to use the audience’s native language and to incorporate culturally appropriate symbols and key messages. Post flyers in stores and community gathering places (e.g., faith-based institutions, schools, community centers, ethnic centers, senior centers, supermarkets, libraries, healthcare centers, fitness centers, pharmacies), targeting those areas your intended audience most frequents. Include a registration form in your promotional material, which can be filled out and returned by mail, e-mail, or fax.

➤ Engage local faith-based leaders, tribal leaders, community health workers, and other respected community figures to help with program promotion among members of the community.

➤ Involve healthcare providers. Ask physicians and other health professionals to refer adult patients with type 2 diabetes to your DSME program as appropriate. Also, they may be able to donate DSME-related supplies (e.g., body weight scales, blood pressure cuffs, glucose meters).

To help spread the word, consider developing “DSME prescription pads” that have a preprinted description of your DSME program and contact information on them. When educating healthcare providers about your community-based DSME program, you can provide them with these handy tear-off sheets for referring adult patients with type 2 diabetes to your activities.
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➤ Enlist local media (i.e., television, newspaper, radio, and Internet sources) to help with program promotion. Prepare a press release to be distributed to the media.

For suggestions on how to generate publicity for your DSME program, you can review the Media Access Guide: A Resource for Community Health Promotion, published by CDC’s Steps Program, at http://www.cdc.gov/steps/resources/pdf/StepsMAG.pdf. Topic sections include instructions, tips, and templates for writing press releases, media advisories, and other media-related materials; methods for monitoring media coverage; and strategies for placing public service announcements (PSAs) and hosting press conferences.

➤ Set up a Web page or Web site that details information about the DSME program and provides contact information for reaching program staff. Depending on your resources, give visitors the option to register online.

➤ Consider offering an “open house” or informational class about the DSME program before it begins, which will address questions that potential participants may have, provide them with an overview of the program, and introduce them to staff.

■ Action Step 11—Organize an orientation session for all program staff.

➤ Use this orientation session to ensure that the curriculum is well understood, that staff roles and boundaries are clear, and that referral guidelines are in place for program participants needing additional care. Staff members who are not health professionals must know when to refer participant questions to the appropriate health professional, and it is critical that all staff must know when to refer participants to a primary healthcare provider to address medical issues.

■ Action Step 12—Begin providing DSME classes. As noted in earlier action steps, your program’s scope of services and selected curriculum will determine the content and format of your DSME and, as such, can vary considerably among community-based programs. There are, however, elements that are common to all programs regardless of how they are delivered, some of which are noted below.

➤ Make sure that you have conducted any initial participant assessments prior to or during one of the first meetings of the class. Follow up with periodic assessments as determined by your curriculum or evaluation plan.

➤ For each class, document each participant’s attendance, the DSME information that was provided, and any participant-specific information obtained during the class, such as physiological measures and participant’s stated concerns. To promote collaboration, this education record should be conveyed to the participant’s primary healthcare provider with the participant’s written consent.

➤ Coordinate and communicate program activities among instructional staff to help ensure that the curriculum components are being delivered as intended and that the educational needs of participants are being met. Schedule periodic staff meetings to facilitate interaction among both instructional and administrative staff members.

➤ Monitor attendance at each class and follow up with each participant who has missed a class to determine the reason and whether there are any issues that may need to be addressed.
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Failure to maintain participant interest is a major obstacle to long-term success. The number of participants remaining in the program is a good general gauge of the program’s relevance and importance to the target population. If you find that a significant number of participants stop attending DSME classes, find out the reasons and make adjustments to the program or its curriculum to address these issues in a timely manner.

Looking Beyond

You and the program’s advisory board and administrative and instructional staff have planned and successfully launched a community-based DSME program. Congratulations! But your work does not end here. As your program progresses, what steps should you take to maintain the momentum of your activities? Look at key strategies in the action steps below for suggestions.

Action Step 13—Ensure that instructional staff members receive appropriate and ongoing training in diabetes management and in teaching and counseling skills.

- Arrange training sessions to inform instructors who address clinical aspects of diabetes self-management about changes in therapeutic modalities and medical nutrition therapy. All DSME instructors should remain current in teaching and learning skills, counseling skills, and behavioral interventions, and be able to adapt these skills to meet the needs of their class participants individually and as a group. The American Association of Diabetes Educators offers a host of continuing education opportunities. Go to http://www.diabeteseducator.org/ProfessionalResources/products for information on “webinars,” online courses, and educational conferences.

- Consider developing train-the-trainer sessions and packaging your DSME program’s materials on planning, promotion, delivery, and follow-up for easy access by incoming instructional staff in subsequent iterations of your program.

- Provide opportunities for instructional staff to improve psychosocial and teaching skills and to share ideas on maintaining participants’ interest in the program.

Share the following strategies for maintaining interest and engagement in DSME activities at the community level. Work with participants to come up with additional ideas.

- Encourage participants to share their experiences in order to reduce feelings of isolation and learn from each other.
- Help participants set goals that meet their individual needs.
- Give incentives (e.g., food samples, useful handouts, free glucose test strips, door prizes) at each class.
- Incorporate the target population’s culture into program components.
- Foster social support by encouraging participants to bring a “buddy” to classes.
- Distribute a periodic newsletter with success stories, a “tip of the month,” or positive testimonials from current or past program participants.
- Remind participants about upcoming classes via postcard or telephone call.
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Action Step 14—Explore methods for sustaining and disseminating the DSME program.

- Continue engaging community stakeholders throughout the course of the DSME program to foster long-term relationships with these individuals and organizations. Acknowledge and thank businesses and other community partners that donated in-kind resources (e.g., staff time, tangible goods) to the program or participated in program planning. Provide these contributors and other stakeholders with general updates on program successes and consider adding them to the mailing list for the program newsletter.

- Encourage healthcare providers to continue referring patients to the DSME program while encouraging participants to communicate program experiences to their physicians. Most patients value their physician’s opinion on health-related matters; therefore, a physician endorsement of your program can increase participant enrollment and retention.

- Work with partners and stakeholders to identify future funding sources for your DSME programmatic activities. If you have established an independent DSME program, consider the benefits of integrating your program with an established healthcare organization to secure additional resources and support.

- Consider working with partners and stakeholders to promote the implementation of similar programs needed within your community and in other interested communities. As part of the dissemination process, share information about your community assessment methods and results, your program’s curriculum and related instructional materials, and the lessons learned in establishing your program.

- Consider the benefits of formal recognition of your DSME program by the American Diabetes Association (ADA) or the U.S. Department of Health and Human Services’ Indian Health Service (IHS). If interested, you will need to determine whether your program meets the National Standards for DSME, in addition to any other requirements of ADA or IHS.

Sustainability Tip: Formal recognition by ADA or IHS is a prerequisite for Medicare reimbursement and can further improve the sustainability of your program by conferring program credibility and providing free publicity and potential referrals through your program’s listing on the accreditation organization’s Web site. The ADA application fee is $1,100 and there is no fee for the IHS application (fees subject to change). For eligibility requirements and application information, refer to:

Use the following lists of personnel, material, and financial resource needs to guide your planning activities for establishing a community-based DSME program for adults with type 2 diabetes. Remember, the resources needed by the group you represent will depend on the scope of program activities and the depth of your group’s involvement. Available funding will determine what personnel and material resources you are able to secure to supplement your existing resources.

### Personnel Resource Needs

The personnel you will need to lead the activities associated with a community-based DSME program may include the following full-time or part-time staff and volunteers:

- Program coordinator to direct program planning and manage the program.
- Administrative staff to provide support to the program coordinator and instructional staff.
- Instructional staff to provide DSME.
- Advisory board composed of committed partners and stakeholders to support the goals of the program.

According to the 2007 National Standards for DSME (available at [http://care.diabetesjournals.org/cgi/content/full/30/6/1630](http://care.diabetesjournals.org/cgi/content/full/30/6/1630)),

- “A coordinator will be designated to oversee the planning, implementation, and evaluation of diabetes self-management education. The coordinator will have academic or experiential preparation in chronic disease care and education and in program management” [from standard 4].

- “DSME will be provided by one or more instructors. The instructors will have recent educational and experiential preparation in education and diabetes management or will be a certified diabetes educator. The instructor(s) will obtain regular continuing education in the field of diabetes management and education. At least one of the instructors will be a registered nurse, dietitian, or pharmacist” [from standard 5].

- “The DSME entity shall appoint an advisory group to promote quality. This group shall include representatives from the health professions, people with diabetes, the community, and other stakeholders” [from standard 2].

Refer to Table 4 on the next page for a summary of the tasks that various personnel typically perform. An important function is determining who will be responsible for each activity. Some of these tasks may be interchanged between different people or groups when appropriate.
## Table 4: Personnel and Their Typical Responsibilities

### Program coordinator
- Oversees the planning, implementation, and evaluation of the DSME program
- Coordinates day-to-day programmatic activity
- Provides ongoing program management
- Assesses existing DSME resources and unmet needs within the community
- Conducts outreach to various stakeholders
- Helps to assemble program advisory board
- Seeks necessary program resources
- Assists the advisory board in recruiting program staff
- Is accountable for quality DSME and *continuous quality improvement*
- Reports at least annually to the advisory board

### Administrative staff
- Provides logistical support for advisory board meetings
- Helps to develop program content and program promotional materials
- Develops and maintains Web page or site, including related e-mail communications
- Collects supplies for DSME classes
- Makes reminder phone calls to participants
- Identifies local transportation services for participants in need of assistance with getting to and from DSME classes

### Instructional staff
- Works with the program coordinator and advisory board to develop program curriculum
- Identifies any additional resources needed to implement the curriculum
- Collaborates to deliver DSME
- Trains and oversees *community health workers* who may provide services to support the curriculum
- Conducts individualized participant assessments
- Engages in collaborative goal-setting processes with participants
- Evaluates and documents participant progress
- Helps participants with problem solving and accessing resources
- Assists with participant recruitment
- Contributes to *continuous quality improvement* and a regular review process
- Helps to ensure that DSME is culturally appropriate, relevant, and responsive to the community

### Advisory board
- Ensures that DSME is culturally appropriate, relevant, and responsive to the community
- Helps to identify program resources, set goals, recruit staff, review potential program activities and materials, and develop an evaluation plan
- Assists with curriculum development and program promotion
- Engages in *continuous quality improvement* and a regular review process
- Recommends program improvements

### Material Resource Needs

You will need a variety of material resources throughout your DSME program's planning and implementation process. As you move forward with your activities, keep in mind ways you might help to acquire or develop some of these materials, using existing resources whenever possible. Basic material resource needs are detailed in the following list:

- Office space for staff
- Office equipment for conducting outreach and research (e.g., computers, printers, fax machine, copier, telephones)
Appendix A—Determining Your Resource Needs

- Meeting space, audiovisual equipment, and materials for advisory board and DSME instructors
- Meeting space and audiovisual equipment for program classes (may need a private area for individualized participant assessments, a kitchen for cooking demonstrations, and an open area for exercise activities)
- Hard-copy educational materials for participants
- Instructional materials (e.g., food models, cooking equipment)
- Equipment for on-site assessments of physiological measures (e.g., body weight scales, blood pressure cuffs, glucose meters)
- Glucose meters for participants to measure blood glucose levels at home
- Hard-copy materials for DSME instructors (e.g., sign-in sheets, attendance records)
- Hard-copy and electronic promotional materials (e.g., flyers, registration forms)
- Items serving as participant incentives (e.g., pedometers, water bottles)
- Materials for interviews, surveys, and other modes of evaluation

- Financial Resource Needs

General, administrative, and personnel costs are the primary expenses for which you will need funds to establish a community-based DSME program. Be sure to budget for all components of your activities, such as the following items:

- Personnel salaries and benefits
- Office overhead
- Office and audiovisual equipment and materials
- Purchase or development and printing of materials for program promotion, class instruction, and DSME instructor training
- Medical equipment for classes
- Instructional staff training
- Program evaluation
- Items serving as participant incentives
- Telephone and Internet access for program use
- Web page or Web site development and maintenance
- Application fee for formal recognition of your DSME program by the American Diabetes Association or the Indian Health Service (discussed in Action Step 14) if desired
- Miscellaneous items such as refreshments during meetings and classes
Appendix B
Evaluating Your Activities

Evaluation is a key component of your program and should be conducted before, during, and after program implementation. You can use evaluation data to plan community-specific programs, to assess the effectiveness of the implemented program in achieving its objectives, and to modify current activities where necessary for program improvement.

Evaluation data can also be used to keep stakeholders updated on the DSME program’s progress; show participants the benefits of their active involvement in the program; describe the program when applying for or securing additional support through partner funding, grant opportunities, and other methods; and provide other community groups with information as they consider developing a DSME program of their own.

Although specific guidance on conducting an evaluation is outside the scope of this Action Guide, you will find suggested questions below to guide you in collecting data for process and outcome evaluations; the specific questions you ultimately develop will depend on the objectives you have set and will be unique to your program. Potential sources of data are also listed to help you answer these questions. In addition, refer to “Resources for Developing an Evaluation Plan” in Appendix C: References and Resources, which includes a Web site link to the American Association of Diabetes Educators’ AADE7™ Self-Care Behaviors framework that identifies seven diabetes self-care behaviors and outlines ways to measure them as part of DSME program evaluation.

Questions to Guide Data Collection

Process Evaluation

To assess whether the program was implemented as intended, you will need to collect data on the quality and effectiveness of your activities. Questions helpful in this assessment include the following:

- Is the advisory board representative of appropriate community stakeholders?
- Does the program have a realistic mission statement and goals?
- Do the advisory board and program staff meet regularly?
- Do instructional staff members receive appropriate ongoing training and supervision?
- How was the program publicized? Approximately how many people were reached via promotion? Which participant recruitment strategies worked best and which were least effective?
- To what extent are program participants representative of the target audience?
- Has the level of participation decreased over time? What reasons were cited? Were adjustments made to address these reasons?
- Are all program components delivered as intended? If not, why not (e.g., additional resources are needed to fully implement the program)?
- Are some program components delivered better by certain instructional staff members than by others? What teaching lessons can be shared?
- Do instructional staff members address participant needs and concerns?
- Was a continuous quality improvement process instituted and documented? Has it identified any ways to make the program more efficient and effective?
- What are the program costs, from a participant and from a delivery perspective?
Appendix B—Evaluating Your Activities

**Outcome Evaluation**

To assess the program’s influence and make recommendations for future program direction and improvement, you will need to collect data on the expected outcomes of using this community-based DSME approach to improve participants’ *glycemic control*. Although long-term health outcomes—such as increased quality-adjusted life years—are hard to attribute to any one program, asking the following questions may help you determine whether this approach was successful:

- To what extent have participants achieved their self-identified behavioral goals (e.g., quitting tobacco use, eliminating candy consumption, taking a 10-minute walk every day, taking specified steps to reduce stress, practicing proper oral health)?

- To what extent have participants improved targeted physiologic measures such as weight, blood pressure, cholesterol, *blood glucose level*, and *hemoglobin A1c*?

- How many and what proportion of participants have sustained behavioral or physiologic improvements for one month or longer after the program ended? For six months or longer?

- How do participants rate the improvement in their overall quality of life as a result of program participation?

- To what extent have participants improved their linkage with clinical healthcare systems (e.g., making and keeping physician appointments)?

- Have any changes in the broader community environment come about as a result of the DSME program (e.g., policy changes to encourage more grocery stores to open in the community)?

**Potential Sources of Data**

There are many ways to collect data on process and outcome evaluation indicators. The data you use should address and answer the questions outlined in your evaluation plan. You may need to develop data sources, or you may adapt data sources already in existence. The following partial list of data sources may help you get started:

- Advisory board meeting minutes

- *Continuous quality improvement* data

- Participant registration and attendance records

- Quality-of-life, knowledge, and food-frequency assessment tools (available through the American Diabetes Association, the American Association of Diabetes Educators, the National Diabetes Education Program, and other sources)

- Self-reports of behavioral changes, smoking status, and 24-hour food recall

- Participant satisfaction surveys

- Results from physiologic measures—such as weight, blood pressure, and *blood glucose level*—taken on-site at DSME classes

- Results from tests administered by healthcare providers as part of ongoing care (either from providers with participants’ written consent or based on participants’ self-reports)

- Participant feedback on missed days from work or other activities due to *diabetes-related complications*

- Interviews, questionnaires, and focus groups with participants
Appendix C
References and Resources

Evidence-Based Reviews of DSME in Community Gathering Places

Task Force on Community Preventive Services


The Cochrane Collaboration

General Resources and Tools for DSME
American Association of Diabetes Educators. About Diabetes Education. Available at: http://www.diabeteseducator.org/DiabetesEducation.

American Association of Diabetes Educators. Resources Library. Available at: http://www.diabeteseducator.org/ProfessionalResources/Library.


Indian Health Service’s Division of Diabetes Treatment and Prevention. Indian Health Diabetes Best Practices. Available at: http://www.ihs.gov/MedicalPrograms/Diabetes/index.cfm?module=toolsBestPractices.

Appendix C—References and Resources


**Resources for Developing an Evaluation Plan**


Association for Community Health Improvement. Planning, Assessment, Outcomes, and Evaluation Resources. Available at: http://www.communityhlth.org/communityhlth/resources/planning.html.


**Community Health Workers**


Appendix C—References and Resources


Cultural Competency in DSME


Other Research Articles


### Engaging Communities


### Assessing Community Health Promotion Needs


Appendix C—References and Resources


Setting Health Priorities


Chronic Diseases, Risk Factors, and Related Data


Evidence-Based Guidelines and Systematic Reviews for Selecting Other Interventions


Evidence-Based Practice


University of Massachusetts Medical School. Evidence-Based Practice for Public Health. Available at: http://library.umassmed.edu/ebpph/index.cfm.

Program Planning


University of Toronto Centre for Health Promotion. *Introduction to Health Promotion Program Planning*. Toronto, Ontario: University of Toronto; 2001. Available at: http://www.thcu.ca/infoandresources/publications/Planning.wkbk.content.apr01.format.oct06.pdf.

Comprehensive Program Development Resources


Appendix D
Glossary of Selected Terms

This glossary defines several key terms and concepts used within the guide. Throughout the text, words that are listed in this appendix have been italicized whenever they are used to alert you that a definition is provided.

**Blood glucose level**—The amount of glucose in the blood at a given point in time; also known as blood sugar level, serum glucose level, and plasma glucose concentration.

**Community health worker (promotor/promotora de salud)**—A trained community member who works in various settings and helps to connect people to health resources, to provide social support and education, and to otherwise promote health among groups that have traditionally lacked access to adequate healthcare; also known as a community health advocate, lay health educator, peer health educator, and community health outreach worker.

**Continuous quality improvement**—A process through which programs are made more efficient or effective; involves identification of problems and opportunities for change and implementation of program improvements.

**Cooperative extension service**—A noncredit educational network with state and local offices funded by the U.S. Department of Agriculture Cooperative State Research, Education, and Extension Service that may run community-based DSME programs.

**Diabetes educator**—A health professional, such as a registered nurse, registered dietitian, pharmacist, physician, physician’s assistant, clinical psychologist, exercise physiologist, occupational therapist, physical therapist, optometrist, podiatrist, or social worker, who specializes in providing care and education to people with diabetes.

- **Certified**: Diabetes educators may be certified by the National Certification Board for Diabetes Educators. The CDE credential indicates that individuals have met standardized academic and experiential criteria. The certification examination is designed and intended solely for licensed, certified, or registered health care professionals who have defined roles as diabetes educators, not for those who may perform some diabetes-related functions as part of or in the course of other usual and customary duties. [Note: Another credential that indicates specialized training beyond basic preparation is Board Certification in Advanced Diabetes Management (BC-ADM), which is available to master’s prepared nurses, dietitians, and pharmacists and conferred by the American Nurses Credentialing Center.] For information on both the CDE and the BC-ADM certifications, refer to http://www.diabeteseducator.org/ProfessionalResources/Certification.

**Diabetes-related complications**—
- **Acute**: Short-term, sudden-onset conditions such as hypoglycemia (abnormally low blood glucose level) and hyperglycemia (abnormally high blood glucose level).
- **Chronic**: Long-term conditions such as heart disease, blindness, nerve damage, or kidney damage that develop over time, particularly if diabetes has not been well controlled.

**Glucose**—A type of sugar; the primary energy source for the body.

**Glycemic control**—Control of blood glucose level.

**Glycohemoglobin (GHB)**—See Hemoglobin A1c.

**Hemoglobin A1c (HbA1c)**—A form of hemoglobin—a molecule found in red blood cells—the value of which is used to monitor average blood glucose levels over time; also called glycohemoglobin, glycated hemoglobin, or A1c.

**Type 2 diabetes**—A disease in which the body is unable to produce sufficient amounts of or respond to insulin, a hormone required by the body to convert glucose to energy.
Partnership for Prevention® would like to hear from you about this Action Guide. Please help us improve this tool by filling out this form and faxing it back to us at (202) 833-0113, or by providing your feedback online at http://www.prevent.org/actionguides.

User Feedback Form

1. Please rate how much you agree with the following statements:
   a) Information within this Action Guide is easy to understand
      - Yes
      - Somewhat
      - No
   b) Information within this Action Guide is easy to find
      - Yes
      - Somewhat
      - No
   c) Boxes marked with hurler and light bulb icons provide practical and useful additional information
      - Yes
      - Somewhat
      - No
   d) I will use this Action Guide to help improve my community’s health
      - Yes
      - Maybe
      - No
   e) I would recommend this Action Guide to others
      - Yes
      - Maybe
      - No

2. Is there any other information that you would like to have seen included in this Action Guide to assist with implementation?

3. Which best describes your work setting?  
   - Nonprofit
   - For profit
   - Federal/State/Local Government Agency
   - Healthcare Setting
   - Community Organization
   - Academic
   - Other (please specify) ________________________________

4. What is your position? ________________________________

5. How did you hear about this Action Guide? (check all that apply)
   - Word of mouth
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   - Web site
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6. May we contact you for additional feedback? If yes, please provide information below.
   Name: ___________________________________________ Daytime Phone Number: ___________________________