

# Competencies for Diabetes Educators

A Companion Document to the  
Guidelines for the Practice  
of Diabetes Education

**AADE**

American Association  
of Diabetes Educators



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American Association of Diabetes Educators

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# Overview

More than 23 million Americans have diabetes and an additional 57 million are believed to have pre-diabetes.<sup>1</sup> The prevalence of diabetes is increasing exponentially and is expected to reach 366 million worldwide by 2030.<sup>2</sup>

Importantly, minority and vulnerable populations such as the older adults are more seriously affected by this epidemic.<sup>3</sup> Because the person with diabetes is responsible for 99% of his own care,<sup>4</sup> he or she should be equipped with the knowledge and skills needed for effective diabetes self-management. Diabetes education improves clinical outcomes and quality of life<sup>5-9</sup>; therefore, it is reasonable to conclude that all persons with diabetes should have access to diabetes self-management education and training (DSME/T). Throughout the rest of this document, the term “patient” is meant to refer to the person with diabetes and his or her family or significant others.

Diabetes education has been defined as the formal process through which persons with or at risk for diabetes develop and use the knowledge and skill required to reach their self-defined diabetes goals<sup>10</sup>; however, the majority of patients with diabetes never receive formal diabetes education.<sup>11-13</sup> Experts agree that diabetes education is most appropriately delivered by qualified diabetes educators, including, but not limited to Registered Nurses, Registered/Licensed Dietitians, and Registered Pharmacists.<sup>14-16</sup> In reality, many patients with diabetes are educated in physician’s offices, clinics, pharmacies, hospitals, or in their homes by various healthcare professionals. Although all healthcare professional programs of study include diabetes-related content, non-specialist providers have widely varying levels of expertise with diabetes.<sup>17-26</sup> Moreover, in an attempt to better meet the needs of diverse or underserved diabetes populations, investigators are also examining the effectiveness of peers and lay or community health workers as sources of basic diabetes information and links between the patient and the healthcare system.<sup>27, 28</sup>

Diabetes educators are healthcare providers who, by virtue of education, experience, and credentialing possess the knowledge and skills needed to effectively care for people with or at risk for diabetes. Nevertheless, even within the diabetes specialist community, competence is likely to vary with education, training, and experience.<sup>16, 29, 30</sup> The *Scope of Practice, Standards of Practice, and Standards of Professional Performance for Diabetes Educators* defines the scope and minimal performance standards for diabetes educators.<sup>15, 31</sup> Similar documents exist or are in development for diabetes specialist dietitians and pharmacists.<sup>16, 32, 33</sup>

Historically, clinicians interested in diabetes education have been self-taught, building on the



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basic diabetes content provided in their respective professional curricula. Individuals used books, journals, patient education materials, continuing education opportunities, and on-the-job training or informal apprenticeships to acquire the fundamental background needed for diabetes educator positions. Although there were national standards for provision of diabetes self-management education,<sup>14</sup> there were no standards or guidelines for clinicians to acquire and refine the core knowledge and skills needed to become or develop fully into a diabetes educator. Two diabetes-specific credentials are currently available in the US: the Certified Diabetes Educator (CDE) and the Board Certified in Advanced Diabetes Management (BC-ADM). Specific information about these credentials is published elsewhere.<sup>31, 34, 35</sup> Knowledge, skill, and practice requirements exist for both levels of certification, but the relationship between these two levels has not been well articulated. Given the magnitude of the diabetes epidemic, the continual advances in science and technology, and the changing healthcare landscape, it is critical to provide more structure for all people engaged in diabetes education.

A number of healthcare groups or organizations have developed competency-based systems and standards in the past decade, including the Accreditation Council for Graduate Medical Education, the American College of Healthcare Executives, the American Dietetics Association, the American Nurses Association, and the National Association of Boards of Pharmacy.<sup>16, 36, 37</sup> With this background in mind, AADE convened a workgroup to develop national curriculum guidelines that would provide the pedagogical structure needed not only to identify the key knowledge, skills, and abilities of the diabetes educator, but also to define a career pathway in diabetes education. Simultaneously, a workgroup was empanelled to draft guidelines for the practice of DSME/T. Working independently, these two groups developed similar structures and then came together to reach consensus on an overarching framework.<sup>34</sup>

Given the magnitude of the diabetes epidemic, the continual advances in science and technology, and the changing healthcare landscape, it is critical to provide more structure for all people engaged in diabetes education.

Because AADE is a multidisciplinary organization with the strong belief that diabetes education is an interdisciplinary specialty, the work group consisted of representatives from nursing, dietetics, and pharmacy. Workgroup members were selected not only to represent their respective professions, but also for their clinical experience in public health, patient care, and academics.

The group was faced with the initial challenge of defining the outcome of the process. Although this outcome was reconceptualized over time, three important frameworks emerged. First, recognizing that diabetes education is a subspecialty of many professions, the group adopted the situational Dreyfus model used so successfully in business and the healthcare professions.<sup>16, 29, 30</sup> This model distinguishes varying levels of expertise in a field, ranging from novice to expert. The novice is characterized by rigid adherence to rules; advanced beginners have a larger frame of reference, but are more comfortable with reliance on protocols and guidelines. Competent clinicians handle routine tasks easily, but must deliberate carefully before making decisions about unusual or unexpected events. The proficient clinician is more holistic, is comfortable with change, and can process information easily with changes in patient status. Expert clinicians are characterized by their intuitive understanding of even the most complex situations.<sup>38</sup> Benner suggests that competent clinicians have been engaged in practice for two to three years, proficient providers have worked in a given field for three to five years,

and the expert has an “enormous background of experience”.<sup>30</sup> As a student in any of the healthcare professions, one begins at the novice level whereas new graduates in a profession enter practice as advanced beginners. Each level of expertise is achieved through continuing education and clinical or technical expertise. Therefore, with experience and over time, the clinician is able to move through these stages; however, even if he or she is an expert in one field, a clinician becomes a novice again when moving from one area of practice, e.g., general practice, to another, e.g., diabetes specialty practice.<sup>29</sup>

Next, Bloom’s taxonomy of educational objectives framed the cognitive, affective, and psychomotor domains of learning.<sup>39, 40</sup> According to Bloom’s taxonomy, there are six cumulative levels of cognitive behavior: knowledge, comprehension, application, analysis, synthesis, and evaluation. Given that knowledge is prerequisite to higher levels of cognitive learning, knowledge serves as the foundation for all levels of the competencies. As the clinician moves from novice to clinical expert, he or she should also be moving from application of knowledge to analysis, synthesis, and evaluation. Thus, as well as serving as care providers, the proficient and expert diabetes educators are capable of mentorship and consultation across the continuum of care.

Finally, the group agreed that it was possible to identify skills and content that could be taught, mastered, and measured. Once developed, these core competencies for the practice of diabetes education would be useful as a basis for education, training, development, and performance appraisal of all clinicians engaged in diabetes education.

A broad body of knowledge about competencies has been building in the social sciences for decades. More recently, competency-based education and training strategies have moved into the healthcare arena.<sup>37, 41</sup> Numerous groups have been unsuccessful in their attempts to develop competencies. Calhoun and colleagues suggest that failure may be related to poor understanding of the purpose of the project,

difficulty with commonly used lexicon, variability in background and preparation of group members, and differences in motivation.<sup>37</sup> Even successful groups had structural issues, such as applicability of competencies across dimensions, problems related to the scope and purpose of the competencies, and how to deal with the very real possibility that competencies may need to change over time.<sup>37</sup> Sensitive to these issues and aiming to minimize methodological problems, the working group mapped out a strategy to move forward.

A definition of competencies helped to structure the remaining work. For the purposes of this project, competencies were defined as “a cluster of related knowledge, skills, and attitudes that: affect a major part of one’s job, correlate with job performance, can be measured, and can be improved by training and development.”<sup>42</sup> Consistent with the most common techniques used for competency model development, we used a broad-based consensus-building process



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across all stakeholders using literature review, stakeholder analysis, benchmarking, and expert panel appraisal<sup>37</sup>. The first steps involved a review of existing documents, including the *AADE Scope of Practice, Standards of Practice, and Standards of Professional Performance for Diabetes Educators, American Dietetic Association: Standards of Practice and Standards of Professional Performance for Registered Dietitians (Generalist, Specialty, and Advanced) in Diabetes Care*, the *National Standards for Diabetes Self-Management Education* as well as AADE's Draft Position Statement on the *Scope and Standards for the Pharmacist Diabetes Educator* and the Position Statement on *Community Health Workers in Diabetes Management and Prevention*.<sup>14, 16, 31, 32, 43</sup> Next, professional practice survey data available from AADE were examined for practice patterns and gaps. Provider levels were based on the *AADE Guidelines for the Practice of Diabetes Education*. The competencies for each of the five healthcare practitioner levels represent the career range described in Table 1.

Once the levels of practice were defined, the group created a master list of the knowledge, skills, and abilities needed for the various components of practice. These components clustered into five main domains: pathophysiology, epidemiology, and clinical guidelines of diabetes; culturally-competent supportive care across the lifespan; teaching and learning skills; self-management education; and program and business management. For each domain, the competency is defined, and specific objectives were identified. While the AADE7 Self-Care Behaviors™ are embedded throughout the objectives, specific focus on Problem Solving and Healthy Coping can be found in Domain III and the remaining self-care behaviors (Healthy Eating, Being Active, Monitoring, Taking Medication, and Reducing Risks) can be found in Domain IV. The five domains outlined in this draft document are:

- **Domain I: Pathophysiology, Epidemiology, and Clinical Guidelines of Diabetes**

This domain addresses the competencies needed for individuals to demonstrate familiarity with pathophysiology, epidemiology, and clinical guidelines consistent with diabetes care provider level.

- **Domain II: Culturally-Competent Supportive Care Across the Lifespan**

This domain addresses the competencies needed to provide diabetes support and care in a culturally-competent manner across the lifespan.

- **Domain III: Teaching and Learning Skills**

This domain addresses the competencies needed to apply principles of teaching and learning and/or behavior change to facilitate self-management skills of individuals with diabetes.

- **Domain IV: Self-Management Education**

This domain addresses the competencies needed to work with an interdisciplinary diabetes care team to tailor interventions to individual patient self-management education needs.

- **Domain V: Program and Business Management**

This domain addresses the competencies needed to apply principles of program and/or business management to create a climate that supports successful self-management of diabetes.

The competencies identified in this document have been developed to reflect the knowledge and skill needed by providers at various levels across the continuum of care. However, it is important to recognize that this initial attempt at articulating core competencies is based on a review of the literature and subsequent consensus development. These competencies can provide an initial framework for clinicians assisting with and/or moving into the field of diabetes education and management. They should also serve as a basis for research to further define the knowledge, skills, and abilities needed by diabetes information and education providers at various levels across the continuum.

**Table 1: DSME/T Provider Levels**

Characteristics	Definition
<p><b>Level 1</b>  <b>Non-Healthcare Professionals</b></p>	<p>Level 1 includes community healthcare workers and other non-professional healthcare providers who have little expertise in diabetes education and/or management, but provide and/or support healthcare services to individuals with diabetes. This level includes, but is not limited to: health promoters, health educators, and community health workers.</p>
<p><b>Level 2</b>  <b>Healthcare Professional Non-Diabetes Educator</b></p>	<p>Level 2 includes professional healthcare providers who have little expertise in diabetes education and/or management, but provide and/or support healthcare services to individuals with diabetes. This level includes, but is not limited to: medical assistants (MA); licensed practical nurses (LPN); registered nurses (RN); nutritionists, dietetic technicians, registered (DTR); registered pharmacists (RPh); and others.</p>
<p><b>Level 3</b>  <b>Non-Credentialed Diabetes Educator</b></p>	<p>Level 3 providers meet the AADE definition of diabetes educator, but are not credentialed as a certified diabetes educator (CDE) or board certified in advanced management (BC-ADM). This level includes, but is not limited to registered nurses, registered dietitians, registered pharmacists, licensed mental health professionals, and exercise physiologists.</p>
<p><b>Level 4</b>  <b>Credentialed Diabetes Educator</b></p>	<p>Level 4 encompasses diabetes educators with intermediate-to-advanced skills in the delivery of diabetes education who have successfully met the academic, professional, and experiential requirements set forth by the National Certification Board for Diabetes Educators (NCBDE).</p>
<p><b>Level 5</b>  <b>Advanced Level Diabetes Educator/ Clinical Manager (Non-Rx with protocols or Rx)</b></p>	<p>Level 5 diabetes educators are those individuals who have significant experience and advanced skills in the delivery of diabetes education. Practice arenas vary. These individuals meet the academic, professional, and experiential requirements set forth by the AADE and ANCC but may or may not be credentialed as a BC-ADM. Often these individuals serve in a consultative role.</p>

# Domain I: Pathophysiology, Epidemiology, and Clinical Guidelines of Diabetes

**Competency:** Demonstrates familiarity with pathophysiology, epidemiology, and clinical guidelines consistent with diabetes care provider level

Level	Objectives
<b>1</b>	<p><b>Pathophysiology</b></p> <ol style="list-style-type: none"><li>1. Identifies differences between the types of diabetes (type 1, type 2, pre-diabetes, and gestational diabetes)</li><li>2. States signs and symptoms of acute hyperglycemia</li><li>3. Lists signs and symptoms of hypoglycemia and DKA (major acute complications)</li><li>4. Identifies risk for common complications of diabetes (e.g., eye, nerve, kidney, etc.)</li></ol> <p><b>Epidemiology of Diabetes Disease State</b></p> <ol style="list-style-type: none"><li>1. Recognizes local prevalence of diabetes</li><li>2. Identifies characteristics of high-risk populations</li><li>3. Participates in community screening events</li><li>4. Encourages patient to seek healthcare for annual screening and/or for symptomatic hyperglycemia</li></ol> <p><b>Clinical Practice Guidelines</b></p> <ol style="list-style-type: none"><li>1. Demonstrates familiarity with the AADE7 Self-Care Behaviors™ framework</li><li>2. Articulates the clinical practice guidelines and diagnostic criteria</li><li>3. Uses knowledge of referral process and recommended health screenings (e.g., A1C, cholesterol, etc.) to make referrals for routine diabetes care</li><li>4. Makes referrals to qualified diabetes educators/care providers as indicated by patient signs, symptoms, and status</li><li>5. Provides information consistent with diabetes care provider diagnosis and information</li></ol>
<b>2</b>	<p><b>Pathophysiology</b></p> <ol style="list-style-type: none"><li>1. Describes normal glucose metabolism</li><li>2. Differentiates between the common types of diabetes mellitus</li><li>3. Explains pathophysiologic mechanisms responsible for the development of type 1, type 2, and gestational diabetes</li><li>4. Identifies common risk factors for the development of the acute complications of diabetes</li></ol> <p><b>Epidemiology of Diabetes Disease State</b></p> <ol style="list-style-type: none"><li>1. Identifies patient groups at risk for chronic complications</li><li>2. Conducts community screening events</li><li>3. Facilitates referrals for diabetes care and education</li></ol> <p><b>Clinical Practice Guidelines</b></p> <ol style="list-style-type: none"><li>1. Uses principles of evidence-based practice to guide professional practice</li><li>2. Adheres to established clinical practice guidelines in a variety of patient care settings</li><li>3. Participates in the evaluation of program, unit, or agency using clinical practice guidelines</li><li>4. Updates agency-specific policies and procedures in accordance with established guidelines</li></ol>
<b>3</b>	<p><b>Pathophysiology</b></p> <ol style="list-style-type: none"><li>1. Outlines the pathophysiology of gestational diabetes and its relationship to the development of type 2 diabetes</li><li>2. Describes the pathophysiologic basis of hypoglycemia, DKA, and HHS</li><li>3. Explains the relationship between chronic hyperglycemia and the development of chronic complications</li><li>4. Relates particular signs and symptoms to specific long-term complications of uncontrolled diabetes</li></ol>

Level	Objectives
	<p><b>Epidemiology of Diabetes Disease State</b></p> <ol style="list-style-type: none"> <li>1. Organizes community screening events</li> <li>2. Defines community</li> <li>3. Facilitates diabetes education referral networks on a community and/or regional level</li> </ol> <p><b>Clinical Practice Guidelines</b></p> <ol style="list-style-type: none"> <li>1. Implements evidence-based clinical practice guidelines to provide diabetes education in a variety of patient care settings</li> <li>2. Examines agency-specific policies and procedures for consistency with established guidelines</li> <li>3. Critically appraises current diabetes-related research for use in practice</li> <li>4. Applies clinical practice guidelines to the evaluation of program, unit, or agency</li> </ol>
4	<p><b>Pathophysiology</b></p> <ol style="list-style-type: none"> <li>1. Differentiates between common and atypical diabetes disease states</li> <li>2. Explains pathophysiology of diabetes to non-specialist providers</li> <li>3. Uses data from research studies to analyze the relationship between chronic hyperglycemia and the development of chronic complications</li> </ol> <p><b>Epidemiology of Diabetes Disease State</b></p> <ol style="list-style-type: none"> <li>1. Assesses community and plans for appropriate screening events</li> <li>2. Serves as a diabetes education referral resource on a community and/or regional level</li> </ol> <p><b>Clinical Practice Guidelines</b></p> <ol style="list-style-type: none"> <li>1. Serves as a resource for evidence-based clinical practice guidelines in diabetes education for implementation in a variety of patient care settings</li> <li>2. Evaluates diabetes education and care delivery according to appropriate clinical practice guidelines</li> <li>3. Assists agencies to develop or revise diabetes education policies and procedures for consistency with established guidelines</li> <li>4. Examines current trends from diabetes research for application to practice</li> </ol>
5	<p><b>Pathophysiology</b></p> <ol style="list-style-type: none"> <li>1. Synthesizes knowledge of diabetes pathophysiology to direct diabetes education and/or diabetes care delivery</li> </ol> <p><b>Epidemiology of Diabetes Disease State</b></p> <ol style="list-style-type: none"> <li>1. Uses comprehensive knowledge of diabetes to provide clinical expertise to others on the healthcare team</li> <li>2. Develops and conducts or participates in diabetes-related research activities according to educational preparation</li> </ol> <p><b>Clinical Practice Guidelines</b></p> <ol style="list-style-type: none"> <li>1. Applies knowledge of the best available evidence to assist in the review and/or development of clinical practice guidelines</li> <li>2. Facilitates coordination and communication with primary care providers, diabetes care team, and other members of the patient's network as appropriate</li> <li>3. Serves as referral resource and role model for DSME/T processes</li> <li>4. Applies knowledge of current established criteria, diagnoses diabetes, identifies early complications, and refers to appropriate care providers for follow-up</li> <li>5. Updates knowledge of research findings and treatment innovations (new position statements and consensus meeting reports) on a continuous basis</li> </ol>

Note: It is assumed that competency requirements are cumulative throughout the levels

## Domain II: Culturally-Competent Supportive Care Across the Lifespan

**Competency:** Provides diabetes support and care in a culturally-competent manner across the lifespan

Level	Objectives
<b>1</b>	<p><b>Lifespan</b></p> <ol style="list-style-type: none"> <li>1. Identifies and refers high-risk and/or patients with unstable diabetes to diabetes care providers</li> <li>2. Encourages use of family and community support systems</li> <li>3. Identifies support systems</li> </ol> <p><b>Culture</b></p> <ol style="list-style-type: none"> <li>1. Acknowledges that attitudes about health and health management vary across cultures</li> <li>2. Promotes learning experience in a culturally-appropriate manner</li> <li>3. Works with diabetes care providers to identify and overcome cultural barriers to self care or behavior change</li> <li>4. Conveys diabetes self-management information and healthcare provider recommendations accurately to patient</li> <li>5. Provides culturally-specific basic health information</li> </ol>
<b>2</b>	<p><b>Lifespan</b></p> <ol style="list-style-type: none"> <li>1. Identifies prevalence of diabetes across the lifespan (e.g., pediatrics, pregnancy, older adults)</li> <li>2. Provides evidenced-based and national standards of diabetes care to patients across the lifespan</li> <li>3. Assesses patient support systems</li> <li>4. Develops community coalitions to meet the needs of a specific population</li> </ol> <p><b>Culture</b></p> <ol style="list-style-type: none"> <li>1. Selects educational materials consistent with patient's age, literacy level, and cultural or ethnic background</li> </ol>
<b>3</b>	<p><b>Lifespan</b></p> <ol style="list-style-type: none"> <li>1. Uses age-appropriate theories for information, application, health, and chronic disease self-management education</li> <li>2. Assists patients to develop coping skills appropriate for chronologic and developmental age</li> <li>3. Identifies effective community support systems</li> <li>4. Acknowledges relationship between rising rates of obesity and diabetes throughout the life cycle</li> </ol> <p><b>Culture</b></p> <ol style="list-style-type: none"> <li>1. Assesses impact of social, economic, and cultural aspects/circumstances</li> <li>2. Ensures that DSME/T is provided in a culturally-competent fashion</li> <li>3. Works with community groups to meet the needs of specific cultural populations and remove barriers</li> </ol>
<b>4</b>	<p><b>Lifespan</b></p> <ol style="list-style-type: none"> <li>1. Assists other healthcare providers to develop and apply age-appropriate teaching strategies</li> <li>2. Assesses local and regional communities to establish effective support networks for patients with diabetes</li> <li>3. Explains the relationship between rising rates of obesity and diabetes throughout the life cycle</li> </ol> <p><b>Culture</b></p> <ol style="list-style-type: none"> <li>1. Assesses impact of social, economic, and cultural aspects and circumstances</li> <li>2. Models culturally-competent behavior to healthcare team members</li> </ol>

Level	Objectives
5	<p data-bbox="237 338 344 374"><b>Lifespan</b></p> <ol data-bbox="237 381 1268 540" style="list-style-type: none"> <li data-bbox="237 381 1007 411">1. Promotes safe management of diabetes for patients across the lifespan</li> <li data-bbox="237 417 1238 475">2. Provides education to healthcare providers, clinical groups, professionals, paraprofessionals, and the public at large</li> <li data-bbox="237 481 1268 540">3. Assesses and establishes effective support networks for patients with diabetes in the local, state, and regional communities</li> </ol> <p data-bbox="237 560 332 596"><b>Culture</b></p> <ol data-bbox="237 602 1284 701" style="list-style-type: none"> <li data-bbox="237 602 1222 633">1. Promotes cultural competence into all aspects of patient and healthcare provider encounters</li> <li data-bbox="237 639 1284 669">2. Creates and disseminates educational programs and materials to address different cultural needs</li> <li data-bbox="237 675 960 701">3. Works to eliminate healthcare disparities in vulnerable populations</li> </ol>

Note: It is assumed that competency requirements are cumulative throughout the levels



## Domain III: Teaching and Learning Skills

**Competency:** Applies principles of teaching and learning and/or behavior change to facilitate self-management skills of individuals with diabetes

Level	Objectives
<b>1</b>	<p><b>Teaching and Learning</b></p> <ol style="list-style-type: none"><li>1. Reinforces information provided by qualified diabetes professionals</li><li>2. Conveys educational materials to patients accurately</li><li>3. Assists clients to acquire accurate diabetes educational materials</li><li>4. Assists with skill development</li><li>5. Provides ongoing coaching skills to patients with self-management of a chronic, changing condition</li><li>6. Refers questions to appropriate team member</li><li>7. Uses elements of the AADE7 Self-Care Behaviors™ framework in working with diabetes patients</li></ol> <p><b>Behavior Change</b></p> <ol style="list-style-type: none"><li>1. Works with healthcare team using basic concepts of behavior change to assist patient with effective self-management</li><li>2. Assists patient to set initial self-management goals</li><li>3. Supports patient's efforts to make changes in daily routine</li><li>4. Serves as a link between patient and diabetes healthcare team</li></ol>
<b>2</b>	<p><b>Teaching and Learning</b></p> <ol style="list-style-type: none"><li>1. Identifies and incorporates principles of adult and/or child learning theories, barriers to learning, and instructional strategies</li><li>2. Teaches, reinforces, or validates essential diabetes self-management skills (survival skills) using principles of teaching and learning</li><li>3. Focuses on knowledge and basic skill acquisition for safe self-management</li></ol> <p><b>Behavior Change</b></p> <ol style="list-style-type: none"><li>1. Identifies and incorporates a variety of different frameworks useful for promoting behavior change</li><li>2. Identifies potential utility of the AADE7 Self-Care Behaviors™ framework</li><li>3. Applies basic motivational interviewing skills to assist patient in appropriate and measureable goal setting (i.e., implements behavioral goal plan for patient)</li><li>4. Identifies potential barriers to self-management</li></ol>
<b>3</b>	<p><b>Teaching and Learning</b></p> <ol style="list-style-type: none"><li>1. Assesses patient's diabetes self-management education needs, attitude toward learning, and preferred learning style</li><li>2. Assesses patient's readiness for and barriers to learning</li><li>3. Develops basic plan related to acquiring necessary diabetes management skills based on needs identified in assessment</li><li>4. Applies fundamental principles of adult and/or child learning theories and instructional strategies to provide essential DSME/T for patients with chronic, stable diabetes mellitus</li><li>5. Expands on knowledge and basic skill acquisition with continued focus on survival skills and greater attention to more complex self-management tasks</li></ol> <p><b>Behavior Change</b></p> <ol style="list-style-type: none"><li>1. Assesses patient's readiness to change</li><li>2. Assists patients to identify barriers to change</li></ol>

Level	Objectives
	<ol style="list-style-type: none"> <li>3. Demonstrates familiarity with skills, techniques, and strategies to facilitate behavior change and assist patients with individualized goal setting and evaluation</li> <li>4. Identifies variety of different frameworks useful for promoting behavior change</li> <li>5. Develops, implements, and evaluates behavioral goal plan using selected frameworks</li> <li>6. Guides patient in setting and prioritizing individualized behavioral goals based upon assessment and preference</li> <li>7. Develops success metrics</li> <li>8. Begins situational problem-solving using more advanced thinking skills</li> </ol>
<p><b>4</b></p>	<p><b>Teaching and Learning</b></p> <ol style="list-style-type: none"> <li>1. Assesses health literacy, barriers to learning, and readiness to learn</li> <li>2. Uses AADE7 Self-Care Behaviors™ instructional strategies in curriculum and materials development</li> <li>3. Identifies a learning framework, appropriately applying it to the learning environment within home, work, school, and institutional settings</li> <li>4. Assesses for motivation and readiness to learn and make behavior changes</li> <li>5. Assesses diabetes self-management skills and knowledge of diabetes</li> <li>6. Assesses attitude toward learning and preferred learning style</li> <li>7. Develops an educational plan to address behavioral goals established in the goal-setting process</li> <li>8. Develops a learning plan to address gaps in knowledge</li> <li>9. Recommends and executes plan, and ensures patient has the knowledge, skills, and resources necessary to follow through on the plan (i.e., implements and evaluates the education plan with the client)</li> </ol> <p><b>Behavior Change</b></p> <ol style="list-style-type: none"> <li>1. Applies theories of behavior change and behavior change methodology (e.g., motivational interviewing, cognitive therapy, etc.) to support effective diabetes self-management</li> <li>2. Develops, implements, and evaluates behavioral goal plan</li> <li>3. Focuses attention on patient behaviors that enhance chronic disease management, quality of life changes, and planning for future</li> <li>4. Assists patient to establish realistic, meaningful self-management goals and success metrics</li> <li>5. Provides clients with advanced-level demonstration, training, or resources for independent decision-making and semi-independent problem-solving</li> <li>6. Identifies potential barriers to behavior change, including: cognitive and physical limitations, literacy, lack of support systems, and negative cultural influences</li> <li>7. Plans strategies for addressing barriers identified</li> <li>8. Initiates situational problem-solving and more advanced thinking</li> </ol>
<p><b>5</b></p>	<p><b>Teaching and Learning</b></p> <ol style="list-style-type: none"> <li>1. Applies knowledge of age-specific learning principles, health literacy, and behavior change theory to develop effective DSME/T programs</li> <li>2. Serves as a resource in curriculum and program development, design, and evaluation</li> </ol> <p><b>Behavior Change</b></p> <ol style="list-style-type: none"> <li>1. Promotes behavior change as the unique outcome of DSME/T</li> <li>2. Fluidly shifts among approaches to meet evolving patient challenges</li> </ol>

Note: It is assumed that competency requirements are cumulative throughout the levels

## Domain IV: Self-Management Education

**Competency:** Works with an interdisciplinary diabetes care team to tailor interventions to individual patient self-management education needs

Level	Objectives
<b>1</b>	<p><b>Healthy Eating</b></p> <ol style="list-style-type: none"><li>1. Supports prescription for medical nutrition therapy (MNT)</li><li>2. Identifies nutrition issues needing referral</li><li>3. Facilitates access to community resources for DSME/T and MNT</li><li>4. Reviews general principles of healthy eating</li></ol> <p><b>Being Active</b></p> <ol style="list-style-type: none"><li>1. Communicates the importance of physical activity in diabetes management and prevention</li><li>2. Reinforces fitness prescription</li><li>3. Provides and communicates safety guidelines</li></ol> <p><b>Monitoring</b></p> <ol style="list-style-type: none"><li>1. Reinforces value and prescribed frequency of monitoring, e.g., self-monitoring of blood glucose (SMBG), lab values, and risk assessments</li><li>2. Demonstrates correct techniques in basic blood glucose (BG), blood pressure (BP), weight (wt), height (ht), waist circumference, body mass index (BMI), and A1C measurements</li><li>3. Identifies metabolic results (e.g., A1C, BG, BP, wt, ht, waist circumference, BMI, and ketone testing) that are out-of-target range, requiring referral</li><li>4. Reinforces recommended metabolic targets (e.g., A1C, BG, BP, wt, ht, waist circumference, BMI, and ketone testing) for control to patient</li><li>5. Identifies barriers interfering with monitoring (e.g., SMBG, lab values, and risk assessments)</li><li>6. Assists patient to develop and maintain a personal health record</li></ol> <p><b>Taking Medications</b></p> <ol style="list-style-type: none"><li>1. Identifies common oral blood glucose-lowering agents and injectable therapies</li><li>2. Identifies barriers interfering with patient taking medication as prescribed and makes referrals as needed (i.e., notifies prescriber)</li><li>3. Teaches insulin preparation and injection using needle and syringe, under the supervision of a licensed healthcare provider</li><li>4. Teaches and reinforces safe use of medications</li></ol> <p><b>Reducing Risk</b></p> <ol style="list-style-type: none"><li>1. Identifies signs and symptoms of acute and chronic complications of diabetes and refers to healthcare provider as appropriate</li><li>2. Reinforces the need for basic preventative and risk reduction measures (e.g., foot exams, eye exams, dental exams, lab measurements, smoking cessation, flu vaccines, and immunizations), and makes referrals as appropriate</li><li>3. Accurately performs basic foot exam</li><li>4. Reinforces principles of sick day management</li><li>5. Uses protocols to assist patients in treating hypoglycemia when needed</li><li>6. Calls for emergency help in response to severe hypoglycemia and in cases of DKA</li></ol>
<b>2</b>	<p><b>Healthy Eating</b></p> <ol style="list-style-type: none"><li>1. Assesses meal plan and nutritional components of patient's lifestyle</li><li>2. Introduces patients to principles of healthful eating</li><li>3. Instructs patient about elements of the diabetes meal plan</li><li>4. Provides instruction on hypoglycemia prevention, identification, and treatment</li></ol>

Level	Objectives
	<p data-bbox="237 340 397 374"><b>Being Active</b></p> <ol data-bbox="237 385 1315 479" style="list-style-type: none"> <li>1. Assists patient to assess barriers and facilitators of a personal activity plan</li> <li>2. Provides guidelines for a safe activity plan to the patient with uncomplicated diabetes (e.g., exercise timing, intensity, appropriate shoes, and prevention of hypoglycemia)</li> </ol> <p data-bbox="237 491 378 526"><b>Monitoring</b></p> <ol data-bbox="237 536 1268 808" style="list-style-type: none"> <li>1. Demonstrates correct use of blood glucose meters commonly used in facility or agency</li> <li>2. Defines rationale for target glucose ranges</li> <li>3. Explains frequency of testing</li> <li>4. Assists patients to develop appropriate monitoring schedule</li> <li>5. Describes correct use of ketone monitoring</li> <li>6. Discusses plan for contacting diabetes healthcare provider</li> <li>7. Clarifies patient skill accuracy in performing SBGM, continuous glucose monitoring (CGM), etc.</li> <li>8. Teaches, reinforces, and validates survival skills (e.g., monitoring, medicines, etc.)</li> </ol> <p data-bbox="237 820 483 854"><b>Taking Medications</b></p> <ol data-bbox="237 864 1345 1151" style="list-style-type: none"> <li>1. Explains and delineates with oral and injectable medications for diabetes and co-morbid conditions</li> <li>2. Teaches patient to identify common side effects and adverse reactions</li> <li>3. Works with prescriber to ensure patient understands the need to obtain and take prescribed medications as directed</li> <li>4. Instructs patient in safe and correct preparation and injection technique using vial and syringe or pre-filled pen devices</li> <li>5. Teaches patient to identify correct site selection and rotation patterns, insulin storage, and safe syringe disposal</li> <li>6. Explains and discusses safe and appropriate use of medications</li> </ol> <p data-bbox="237 1163 417 1197"><b>Reducing Risk</b></p> <ol data-bbox="237 1207 1053 1272" style="list-style-type: none"> <li>1. Describes basic knowledge of diabetes risk and strategies for reducing risk</li> <li>2. Recognizes and describes common complications</li> </ol>
3	<p data-bbox="237 1302 425 1336"><b>Healthy Eating</b></p> <ol data-bbox="237 1346 1299 1574" style="list-style-type: none"> <li>1. Provides instruction about nutrition as a framework to guide patient toward successful management of personal meal plans</li> <li>2. Assesses patient's ability to follow complex meal plan</li> <li>3. Provides instruction on completing a food record</li> <li>4. Introduces fundamental concepts of carbohydrate counting and meal-based insulin dosing</li> <li>5. Explains the relationship between food, activity, and medication in preventing hypoglycemia</li> <li>6. Explains interaction of food, activity, and medication</li> </ol> <p data-bbox="237 1586 397 1620"><b>Being Active</b></p> <ol data-bbox="237 1630 1345 1725" style="list-style-type: none"> <li>1. Explains physiological responses that occur during physical activity for all types of diabetes at different blood glucose levels</li> <li>2. Assists patient to develop and evaluate a physical activity plan based on individual needs or condition</li> </ol> <p data-bbox="237 1737 378 1772"><b>Monitoring</b></p> <ol data-bbox="237 1782 1261 1836" style="list-style-type: none"> <li>1. Possesses ability to demonstrate correct use of all blood glucose meters common to geographic area/location</li> </ol>

Note: It is assumed that competency requirements are cumulative throughout the levels

## Domain IV: Self-Management Education

**Competency:** Works with an interdisciplinary diabetes care team to tailor interventions to individual patient self-management education needs

Level	Objectives
	<ol style="list-style-type: none"><li>2. Serves as local resource on monitoring-related issues</li><li>3. Verifies patient's monitoring technique</li><li>4. Assists patients with monitoring-related problem solving</li><li>5. Works with patient and diabetes care team to develop appropriate monitoring schedule</li><li>6. Assists patient to analyze blood glucose values to explain variations in intake or exercise</li><li>7. Uses results of A1C (or equivalent) to reinforce teaching</li><li>8. Discusses value of monitoring during periods of illness (i.e., sick day monitoring strategies)</li><li>9. Focus on intermediate level skill building, pattern control, CGM or pump consideration, and interpretation</li></ol> <p><b>Taking Medications</b></p> <ol style="list-style-type: none"><li>1. Uses information about common oral and injectable medications for diabetes and co-morbid conditions (i.e., focus is on understanding the relationship between food, exercise, and medications)</li><li>2. Instructs patient to safely and correctly prepare and inject insulin using vial and syringe or commonly used insulin pen methods</li><li>3. Explains and uses correct site selection and rotation technique</li><li>4. Develops algorithm or protocol-based medication adjustments for changes in meal plan or exercise</li></ol> <p><b>Reducing Risk</b></p> <ol style="list-style-type: none"><li>1. Assesses patient's knowledge and skills used to reduce diabetes related risks</li><li>2. Clarifies patient's skill accuracy in performing self-blood glucose monitoring and CGM</li><li>3. Teaches, reinforces, and validates survival skills, monitoring, medicines, etc.</li><li>4. Screens for acute and long-term complications</li><li>5. Instructs other members of the healthcare team in proper recognition and treatment of hypoglycemia</li></ol>
4	<p><b>Healthy Eating</b></p> <ol style="list-style-type: none"><li>1. Uses SMBG results to assess food intake and develop intervention or referral</li><li>2. Assists patients to recognize and address challenges in following food plan</li><li>3. Assesses patients for psychosocial adjustment, including coping strategies and eating disorders</li><li>4. Performs physical assessment relative to healthy eating</li><li>5. Evaluates lab and diagnostic test results relative to nutritional status</li></ol> <p><b>Being Active</b></p> <ol style="list-style-type: none"><li>1. Collaboratively develops an individualized activity plan with emphasis on self-management training for physical activity (including management of complications, self-glucose monitoring, and nutrition)</li><li>2. Develops a plan that accommodates variations in routine (e.g., changes in medication and/or meal plan for competitive sports, marathons, etc.)</li><li>3. Applies clinical strategies to minimize risks associated with physical activity</li></ol> <p><b>Monitoring</b></p> <ol style="list-style-type: none"><li>1. Determines patient-specific use of pre- and post-meal monitoring to achieve and maintain A1C goals</li><li>2. Assists uncomplicated patients with advanced pattern management skills</li></ol> <p><b>Taking Medications</b></p> <ol style="list-style-type: none"><li>1. Educates and instructs patient in making drug dosage adjustments using monitoring results</li><li>2. Uses knowledge and understanding of complementary and alternative medicine (CAM) therapy to discuss impact of these on glucose levels</li></ol>

Level	Objectives
	<ol style="list-style-type: none"> <li>3. Initiates insulin pump therapy with selected patients</li> <li>4. Advises on use of over-the-counter (OTC) medications and supplements</li> <li>5. Educates on diabetes-specific and related medication use (i.e., insulin-to-carbohydrate ratios)</li> </ol> <p><b>Reducing Risk</b></p> <ol style="list-style-type: none"> <li>1. Develops an educational plan based on assessment of diabetes risk and strategies for reducing risk</li> <li>2. Assesses for psychosocial adjustment, including coping strategies and eating disorders</li> <li>3. Screens for signs and symptoms of depression</li> </ol>
5	<p><b>Healthy Eating</b></p> <ol style="list-style-type: none"> <li>1. Uses comprehensive knowledge of nutrition and diabetes meal planning to provide (or support) MNT to patients with complex needs.</li> <li>2. Assesses insulin-to-carbohydrate ratio (i.e., must know if food portions are accurate)</li> <li>3. Assess for psychosocial adjustment, including coping strategies and eating disorders</li> <li>4. Performs physical assessment, including signs of malnutrition and anthropometrics</li> <li>5. Performs clinical assessment, including relevant lab values</li> <li>6. Assesses for food/drug interactions</li> <li>7. Reviews food intake in detail to assess accuracy of portions and specific carbohydrate intake or refers to a registered dietitian (RD)</li> </ol> <p><b>Being Active</b></p> <ol style="list-style-type: none"> <li>1. Evaluates and develops a comprehensive health assessment for exercise (e.g., stress testing, etc.) to reduce risk factors (e.g., cardiovascular disease (CVD), weight management, etc.)</li> <li>2. Develops activity plans for patients with complicated diabetes or those who are competitive athletes</li> <li>3. Identifies stages in adoption and use of a fitness plan</li> <li>4. Implements strategies to enable appropriately self-directed fitness plan</li> </ol> <p><b>Monitoring</b></p> <ol style="list-style-type: none"> <li>1. Collaborates with diabetes care team to develop and use effective monitoring strategies for diabetes patients</li> <li>2. Evaluates use of CGM records to achieve and maintain goals in high-risk patients</li> </ol> <p><b>Taking Medications</b></p> <ol style="list-style-type: none"> <li>1. Explains and discusses complex medication therapy management of diabetes and its complications</li> <li>2. Works with high-risk patients to achieve and maintain optimal glucose control</li> <li>3. Assists patients with advanced pump therapy</li> <li>4. Assists with advanced pattern management skills in complicated patients</li> <li>5. Instructs healthcare professionals in various levels of pattern management</li> <li>6. Assesses for use of OTC medications and supplements</li> <li>7. Assesses for diabetes-specific and related medication use (i.e., insulin-to-carbohydrate ratios)</li> </ol> <p><b>Reducing Risk</b></p> <ol style="list-style-type: none"> <li>1. Executes and evaluates an educational plan based on assessment of diabetes complications risk and strategies for reducing risk</li> <li>2. Probes for emotional and/or physical factors linked to depression and treats with counseling, medication, and/or referral as appropriate</li> </ol>

Note: It is assumed that competency requirements are cumulative throughout the levels

## Domain V: Program and Business Management

**Competency:** Applies principles of program and/or business management to create a climate that supports successful self-management of diabetes

Level	Objectives
<b>1</b>	<p><b>Program Management</b></p> <ol style="list-style-type: none"><li>1. Identifies and explains the roles and functions of the members of the healthcare team</li><li>2. Works (i.e., functions) under the direction of a qualified diabetes care provider according to agency protocols</li><li>3. Serves as a resource to patients with diabetes to assist with access to all elements of healthcare system</li><li>4. Acts as conduit between patient and healthcare team when necessary and appropriate</li></ol> <p><b>Business Management</b></p> <ol style="list-style-type: none"><li>1. Articulates the impact of diabetes self-management training on healthcare economy</li></ol>
<b>2</b>	<p><b>Program Management</b></p> <ol style="list-style-type: none"><li>1. Integrates all aspects of patient care consistent with laws and regulations governing professional discipline</li><li>2. Functions as a member of the interdisciplinary diabetes care team</li><li>3. Values the unique contributions of all team members</li><li>4. Communicates effectively and in a timely manner with patients, families, and colleagues</li><li>5. Open to learning, being coached, or mentored</li><li>6. Keeps informed about agency changes in diabetes-related policies, procedures, and equipment</li><li>7. Plans for follow-up and initiates referrals to secure appropriate services for patient and family</li></ol> <p><b>Business Management</b></p> <ol style="list-style-type: none"><li>1. Uses resources in a cost-effective manner</li><li>2. Identifies sources to assist patients with acquisition of supplies and/or medications</li><li>3. Provides appropriate documentation to employers, schools, and government entities according to all relevant laws and guidelines</li></ol>
<b>3</b>	<p><b>Program Management</b></p> <ol style="list-style-type: none"><li>1. Demonstrates initiative in implementing a plan for effectively managing a diabetes education program</li><li>2. Implements care using the typical strategies and resources available for problem-solving</li><li>3. Collaborates with all members of the healthcare team to provide for needed changes in the patient's plan of care</li><li>4. Uses evidence to guide the delivery of diabetes care and education</li><li>5. Assists with the development, selection, or evaluation of diabetes-related resources</li><li>6. Identifies patterns of behavior among staff requiring conflict management</li></ol> <p><b>Business Management</b></p> <ol style="list-style-type: none"><li>1. Works with other agency staff to evaluate safety, effectiveness, and cost relative to diabetes-related materials and equipment</li><li>2. Uses expertise in application of sound judgment to decisions related to resource acquisition and use</li></ol>
<b>4</b>	<p><b>Program Management</b></p> <ol style="list-style-type: none"><li>1. Directs and/or manages all aspects of a diabetes education program</li><li>2. Incorporates program strategies that lead an interdisciplinary care team toward achievement of optimal patient and family outcomes</li></ol>

Level	Objectives
	<ol style="list-style-type: none"> <li>3. Develops and integrates a variety of problem-solving strategies aimed at improving diabetes self-management for individuals and families</li> <li>4. Anticipates, plans for, and manages patient transitions within the healthcare system to ensure care continuity</li> <li>5. Displays creativity to find and use healthcare resources to meet expected and unanticipated patient needs</li> <li>6. Develops, selects, and evaluates resources for use within agency</li> <li>7. Serves as a role model of leadership, effective communication, and collaboration to the interdisciplinary/multiprofessional care team</li> <li>8. Provides coaching and/or mentorship to other members of the diabetes care team</li> <li>9. Identifies areas of research need and assists with diabetes-related research</li> </ol> <p><b>Business Management</b></p> <ol style="list-style-type: none"> <li>1. Applies business management processes to create and manage a diabetes education program</li> <li>2. Identifies system failures and inefficiencies</li> <li>3. Uses principles of CQI to seek opportunities to improve quality and efficiency of program services</li> <li>4. Balances competing demands on time and financial resources</li> </ol>
5	<p><b>Program Management</b></p> <ol style="list-style-type: none"> <li>1. Appraises and evaluates program management competencies (e.g., problem-solving, interpersonal effectiveness, and organizational awareness) among staff and healthcare providers in a diabetes education program</li> <li>2. Promotes a culture of collegiality that enables members of the multidisciplinary team to feel respected and valued</li> <li>3. Designs innovative strategies to improve program effectiveness and enhance care continuity</li> <li>4. Analyzes the current system; recognizes system failures and develops strategies for improvement</li> <li>5. Works toward improving population-based interventions</li> <li>6. Mentors other members of the diabetes care team</li> <li>7. Serves as consultant for development, assessment of program evaluation, and documentation</li> </ol> <p><b>Business Management</b></p> <ol style="list-style-type: none"> <li>1. Provides leadership in system design</li> <li>2. Uses principles of business management to plan, develop, and execute successful programming</li> <li>3. Uses principles of human resource development and planning to create and effectively manage groups of people</li> </ol>

Note: It is assumed that competency requirements are cumulative throughout the levels

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## Competencies for Diabetes Educators: A Companion Document to the Guidelines for the Practice of Diabetes Education

The core competencies listed in this document support the *Guidelines for the Practice of Diabetes Education* by providing a master list of the knowledge and skills needed for the various levels of practice. Additionally, these objectives provide a basis for education, training, development, and performance appraisal of all clinicians engaged in diabetes education.

<http://www.diabeteseducator.org/competencies>

## Guidelines for the Practice of Diabetes Education

*The AADE Guidelines for the Practice of Diabetes Self-Management Education and Training (DSME/T)* describe the implementation of *The Scope of Practice, Standards of Practice* and *Standards of Professional Performance for Diabetes Educators*. These guidelines support the delivery of DSME/T within the framework of the AADE7 Self-Care Behaviors™ and the National Standards for Diabetes Self-Management Education. The roles and responsibilities delineated in the *AADE Guidelines* can be used by individuals and organizations involved in the facilitation and delivery of diabetes education and care for persons with or at risk for diabetes and the families/caregivers.

<http://www.diabeteseducator.org/practiceguidelines>





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