



## Understanding Diabetes Risks and Identifying Strategies to Self-Manage for Better Health

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## **Objectives**

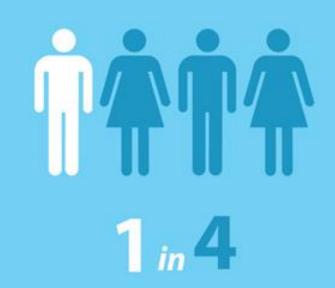
- Identify health risk behaviors for the diabetic population
- Learn strategies to reduce health risks and promote self-management in the diabetic population
- Understand the concept of Diabetes Self-Management in the reduction and control of HbA1c

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2 out of every 5 Americans are expected to develop type 2 diabetes in their lifetime.





#### 29 million Americans have diabetes and 1 in 4 don't know it.





Approximately 1 of 3 adults with diabetes (and 1 of 5 adults with high blood pressure) has chronic kidney disease.



# **\$245 Billion**

In 2012, diabetes and its related complications accounted for \$245 billion in total medical costs and lost work and wages.



## **Understanding Health Risks**

- What is a risk behavior
  - Actions that can potentially threaten individual health or the health of others
- First step
  - Increase awareness of risk behaviors
- Helps reduce the disease burden of diabetes
- Helps improve quality of life

1-https://www.healthypeople.gov/2020/topics-objectives/topic/diabetes

## **Diabetes Identification**

- Criteria for Diagnosis of Prediabetes and Diabetes
  - A1C criteria
  - Fasting plasma glucose (FBG), or
  - 2 hour plasma glucose
  - Same tests used for both to screen and diagnose



## **Diabetes Identification**

	Prediabetes	Diabetes
A1C	5.7–6.4%	≥6.5%
FPG	100–125 mg/dL (5.6–6.9 mmol/L)	≥126 mg/dL (7.0 mmol/L)
OGTT	140–199 mg/dL (5.6–6.9 mmol/L)	≥200 mg/dL (11.1 mmol/L)*
RPG		≥200 mg/dL (11.1 mmol/L)†

\* In the absence of unequivocal hyperglycemia, results should be confirmed by repeat testing. † Only diagnostic in a patient with classic symptoms of hyperglycemia or hyperglycemic crisis. RPG, random plasma glucose.

## Testing Criteria for Diabetes or Prediabetes in Asymptomatic Adults

## • Type 2:

- Should be considered in adults of any age who:
  - Are overweight or obese (BMI ≥25 kg/m2 or ≥23 kg/m2 in Asian Americans)
  - Have one or more additional risk factors for diabetes
- Testing should begin at age 45



## **Additional Risk Factors**

- Physical inactivity
- First-degree relative with diabetes
- History of CVD
- High-risk race/ethnicity
  - (e.g., African American, Latino, Native American, Asian American, Pacific Islander)
- Hypertension
  - $\ge 140/90$  mmHg or on therapy for hypertension

## **Additional Risk Factors**

- HDL cholesterol level:
  - < 40 mg/dL for men
  - <50 mg/dL for women</p>
  - and/or a triglyceride level >150 mg/dL (1.7 mmol/L)
- Women:
  - Polycystic ovary syndrome
  - Diagnosed with Gestational Diabetes
- A1≥5.7%, IGT, or IFG on previous testing
- Other clinical conditions associated with insulin resistance
  - (e.g., severe obesity, acanthosis nigricans)

## Team Care Approach for Diabetes Management

- Can effectively help people cope with the vast array of complications from diabetes
- Can lower risk for:
  - Microvascular complications, such as eye disease and kidney disease
  - Macrovascular complications, such as heart disease and stroke
  - Other diabetes complications, such as nerve damage

## Team Care Approach for Diabetes Management

- Can lower risk by:
  - Controlling ABCs
    - A1C, blood pressure, cholesterol and smoking cessation
  - Following an individualized meal plan
  - Engaging in regular physical activity
  - Avoiding tobacco use
  - Taking medicines as prescribed
  - Coping effectively with the demands of a complex chronic disease

## Team Care Approach for Diabetes Management

- Patients who increase effective behavioral interventions and treatments can prevent or delay progression to:
  - Kidney failure
  - Vision loss
  - Nerve damage
  - Lower-extremity amputation
  - Cardiovascular disease
- Can lead to:
  - Increased patient satisfaction with care
  - Better quality of life
  - Improved health outcomes
  - Lower health care costs

## AADE7<sup>™</sup> Self-Care Behaviors: The Core of DSME Programs

American Association of Diabetes Educators (AADE)



## Definitions

- Self-management:
  - An active, ongoing process that changes as the person's needs, priorities, and situations change
- Diabetes Self-Management Education (DSME):
  - An ongoing process to facilitate a person's knowledge, skill and ability for self-care
  - Incorporates needs, goals and life experiences of the person with diabetes
  - Guided by evidence-based standards

## Definitions

- Support informed and shared decision-making, selfcare behaviors, problem solving and active collaboration with the health care team to improve clinical outcomes, health status and quality of life
- Diabetes educators and others in the team can help people living with or at risk for diabetes

## Purpose

- Understand diabetes disease process and risks and benefits of treatment options
- Incorporate healthy eating behaviors into lifestyle
- Incorporate physical activity into lifestyle
- Understand how to use medications safely and effectively
- Perform self-monitoring of blood pressure when prescribed
- Understand self-management needs during illness or medical procedures

## Purpose

- Perform self-monitoring of blood glucose when prescribed
- Demonstrate how to interpret and use results for self-management decision making
- Understand how to prevent, detect and treat high and low blood glucose
- Prevent, detect and treat chronic diabetes complications
- Develop personal strategies to address psychosocial issues and concerns
- Develop personal strategies to promote health and behavior change

## **Importance of Referrals to DSME**

- Patients may show compliance challenges after a diabetes diagnosis
- Referring to DSME can help patients:
  - Understand disease
  - Develop motivation to self-manage
  - Comply with healthcare providers' advice and instruction

## **Common Compliance Challenges**

### Medication

- 77% of patients with diabetes take insulin as prescribed
- 85% take other medications as prescribed
- Monitoring
  - Fewer than half (45%) monitor blood glucose as told
- Exercise and weight loss
  - Only 24 27% of patients follow instructions closely

# Why refer to DSME?

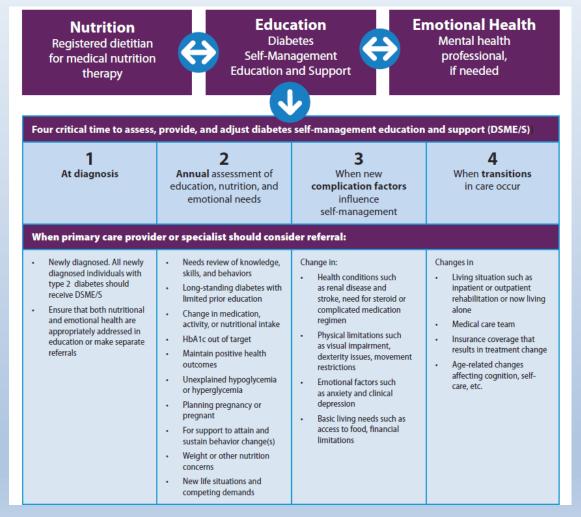
- DSME promotes quality education for people with diabetes
  - ADA endorses the National Standards for Diabetes Self-Management Education and Support as the basis for ADA recognition
  - AADE Accreditation Program based on the National Standards
  - Both certifying bodies recognize DSME as a collaborative process to gain the skills and knowledge needed to modify behavior and successfully manage the disease and its related conditions

## Why refer to DSME?

- Referring to a diabetes educator and supporting interaction with provider follow-up ensures better outcomes for patient (i.e. HbA1c reduction)
- Incorporating reminders and follow-up procedures can dramatically increase likelihood that patients will attend and complete self-management education, gain access to critical information, and have support throughout the course of disease

## **Algorithm of Care**

- Provides an evidence-based depiction of when to identify and refer individuals to DSME
- Defines four critical time points for delivery and key information on the self-management skills necessary at each time



## **Algorithm of Care**

Four critical times to assess, pr	our critical times to assess, provide, and adjust diabetes self-management education and support					
At diagnosis	Annual assessment of education, nutrition, and emotional needs	When new <b>complication</b> <b>factors</b> influence self-management	When <b>transitions</b> in care occur			

#### Primary care provider/endocrinologist/clinical care team: areas of focus and action steps

<ul> <li>Answer questions and provide emotional support regarding diagnosis</li> <li>Provide overview of treatment and treatment goals</li> <li>Teach survival skills to address immediate requirements (safe use of medication, hypoglycemia treatment if needed, introduction of eating guidelines)</li> <li>Make referral for DSME/S and MNT</li> </ul>	<ul> <li>Access all areas of self- management</li> <li>Review problem-solving skills</li> <li>Identify strengths and challenges of living with diabetes</li> </ul>	<ul> <li>Identify presence of factors that affect diabetes self-management and attain treatment and behavioral goals</li> <li>Discuss effect of complications and successes with treatment and self-management</li> </ul>	<ul> <li>Develop diabetes transition plan</li> <li>Communicate transition plan to new health care team members</li> <li>Establish DSME/S regular follow-up care</li> </ul>
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## **Algorithm of Care**

#### Diabetes education: areas of focus and action steps \*

Assess cultural influences, health beliefs, current knowledge, physical limitations, family support, financial status, medical history, literacy, numeracy to determine content to provide and how:

- Medications-choices, action, titration, side effects
- Monitoring blood glucose when to test, interpreting and using glucose pattern management for feedback
- Physical activity safety, shortterm vs. long-term goals/ recommendations
- Preventing, detecting, and treating acute and chronic complications
- Nutrition food plan, planning meals, purchasing food, preparing meals portioning food
- Risk reduction smoking cessations, foot care
- Developing personal strategies to address psychosocial issues and concerns
- Developing personal strategies to promote health and behavior change

- Review and reinforce treatment goals and self-management needs
- Emphasize preventing complications and promotion quality of life
- Discuss how to adapt diabetes treatment and self-management to new life situations and competing demands
- Support efforts to sustain initial behavior changes and cope with the ongoing burden of diabetes

- Provide support for the provision of self-care skills in an effort to delay progression of the disease and prevent new complications
- Provide/refer for emotional support for diabetes-related distress and depression
- Develop and support personal strategies for behavior change and healthy coping
- Develop personal strategies to accommodate sensory or physical limitation(s), adapting to new selfmanagement demands, and promote health and behavior change

- Identify needed adaptions in diabetes selfmanagement
- Provide support for independent selfmanagement skills and selfefficacy
- Identify level of significant other involvement and facilitate education and support
- Assist with facing challenges affecting usual level of activity, ability to function, health beliefs, and feeling of well-being
- Maximize quality of life and emotional support for the patient (and family members)
- Provide education for others now involved in care
- Establish communication and follow-up plans with the provider, family and others

\* Educational content listed in each box is not intended to be all-inclusive, as specific needs will depend on the patient; however, these topics can guide the educational assessment and plan.

## **Everyone with Diabetes Counts (EDC)**

- National initiative
- Part of a five-year contract with CMS
- Aims to improve health outcomes and reduce issues of health disparities among people with diabetes
- Help clinicians, providers, practices, community partners and stakeholders build and support infrastructures that provide access to interactive, evidence-based DSME

## DSME through Everyone with Diabetes Counts (EDC)

- DSME supports informed decision-making, self-care behaviors, problem-solving and active collaboration with the healthcare team to improve clinical outcomes, health status and quality of life
- Trained educators and local community volunteers offer DSME throughout the country by using two different models:
  - Diabetes Empowerment Education Program (DEEP)
  - Diabetes Self-Management Program (DSMP) (originally developed at Stanford University School of Medicine)
- DEEP and DSMP incorporate the needs, goals and life experiences of the person with diabetes and are guided by evidenced-based standards

## What will participants learn?

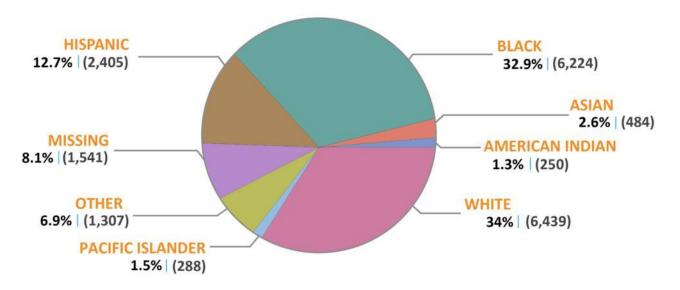
- How to self-manage diabetes for a better quality of life
- How to understand diabetes and its risks
- The importance of:
  - Diet
  - Exercise
  - Keeping regular physician exams
  - Receiving annual foot and eye exams
  - Managing medications
  - Much more
- Overall, EDC teaches participants how to live healthier and have a better quality of life

## EDC DSME Completers (August 2014-July 2016)

#### **PEOPLE REACHED NATIONALLY**

Total DSME Completers 18,938 Rural 29.5% (5,585) Urban 70.6% (13,376)

Self-identified Race/Ethnicity of DSME Completers



Number of Trainers Trained 2,861





## **Teaching Tools**



## **Questions?**



## Resources

- 1. <u>https://www.healthypeople.gov/2020/topics-</u> <u>objectives/topic/diabetes</u>
- 2. <u>http://clinical.diabetesjournals.org/content/33/2/97</u>
- 3. <u>https://www.cdc.gov/diabetes/ndep/pdfs/ppod-guide-</u> <u>team-care-approach.pdf</u>
- 4. American Diabetes Association/American Association of Diabetes Educators National Standards
- Standards of Practice and Standards of Professional Performance for Registered Dietitians (Generalist, Specialty, and Advanced) in Diabetes Care
- Cochran J, Conn VS. Meta-analysis of quality of life outcomes following diabetes self-management training. *Diabetes Educ*. 2008;34:815–23.

## Contact

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**Everyone with Diabetes Counts** 

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