The Burden of Diabetes
Overview of National Diabetes Programs

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THE EPIDEMIC OF DIABETES: 2015 Stats

**Prevalence:** 30.3 million Americans, or 9.4% of the population
- Approximately 1.25 million American children and adults have type 1 diabetes.

**Undiagnosed:** Of the 30.3 million adults with diabetes, 23.1 million were diagnosed, and 7.2 million were undiagnosed.

**Prevalence in Seniors:** The percentage of Americans age 65+ remains high, at 25.2%, or 12.0 million seniors (diagnosed and undiagnosed).

**New Cases:** 1.5 million Americans are diagnosed with diabetes every year.

**Prediabetes:** In 2015, 84.1 million Americans age 18 and older had prediabetes. Only 11% were aware. Present in nearly half of adults age 65+.

**Deaths:** 7th leading cause of death in the United States
Review of a few National Programs

• Everyone with Diabetes Counts (EDC)

• CDC: Diabetes and Pre-Diabetes

• Diabetes Self-Management Education And Support (DSMES)

• Diabetes Prevention Program (DPP)
Everyone with Diabetes Counts (EDC)

- 5-year Centers for Medicare and Medicaid Services (CMS) nation health disparities reduction program (8/1/2014 to 7/31/2019)

- Administered by Quality Innovation Network-Quality Improvement Organizations (QIN-QIOs)

- Goal: to improve diabetes management and prevention
  - Better care
  - Better health and health equity by improving health literacy
  - Lower cost for minority and rural beneficiaries with diabetes and prediabetes across 50 states and three territories
Core Components

- Community members trained as lay diabetes educators
- Provider practices with large percentages of minority and rural patients
- Six weekly group sessions with evidence-based, peer-led curriculum pre-approved by CMS (Stanford and DEEP)
- Partnerships with state health departments
- Mentoring clinicians and students in EDC to become CDEs
People Reached Nationally (Aug 2014-July 2016)

- Total completers=13,760
  - 71% Rural
  - 29% Urban
  - 33% African American
  - 33% White
  - 13% Hispanic
- 2,350 trainers trained
Next Steps

• Pre and post participant knowledge and health behavior survey
• Pre and post clinical measures
  – A1c
  – BP
  – Weight
  – Lipids
  – Foot exams
  – Eye exams
  – Testing frequency

http://qioprogram.org/EDC
CDC has Invested in State Health Departments’ DSMES Efforts
Health Department Funding - 1305

- CDC funds all 50 states and District of Columbia to increase participation in DSMES
- 45 states focusing on expanding access to: participation in & coverage for DSMES
- Emphasis on ADA-recognized or AADE-accredited programs that meet national quality standards
Desired Outcomes for this Funding

- Increase the number of DSMES programs in place, particularly in underserved areas
- Increase participation in DSMES
- Secure Medicaid reimbursement for DSMES in states that do not have it
CDC Resource

Diabetes State Burden Toolkit

Use this tool to report the health, economic, and mortality burden of diabetes in your state. To get started, select your state from the drop-down list or the map below and then choose one of the modules.

Location

Module

- Health Burden
- Economic Burden
- Mortality
Utilization of DSMES

**DSMES** provides the foundation to help people with diabetes navigate decisions and activities and have been shown to improve health outcomes.

Greatly Underutilized:

- 6.8% of individuals with newly diagnosed T2D with private health insurance received DSMES within 12 months of diagnosis
- 4% of Medicare participants received DSMES

Li et al. MMWR. 2014;63:1045-1049
CDC Collaboration with AADE & ADA

- Promoting the benefits of DSMES
- Providing data annually for each state on participation
- Training state health department staff
- Mapping DSMES programs to identify gaps in services

http://www.cdc.gov/chronicdisease/about/state-public-health-actions.htm
Mapping of existing programs

Diabetes education is a recognized part of your diabetes care and is covered by Medicare and most health insurance plans when it is offered through an accredited diabetes education program, which has met vigorous criteria set by the U.S. Department of Health & Human Services.

Two organizations, AADE and the American Diabetes Association, accredit diabetes education programs. Search for an accredited diabetes education program in your area:

ADA-recognized and AADE-accredited DSME Program Site Listing through 3/31/2017
This map shows ADA-recognized and AADE-accredited DSME program sites through 3/31/2017. ADA-recognized sites are noted in lavender markers. AADE-accredited sites are noted in yellow markers.
Objective of this study was to…

Assess effect of diabetes self-management education and support methods, providers, duration, and contact time on glycemic control in adults with type 2 diabetes
Process and Outcomes

• Systematic review published in November 2015 issue of Patient Education and Counseling

• Included 118 unique interventions, with 61.9% reporting significant changes in A1C.

• Engaging adults with type 2 diabetes in DSMES results in statistically significant and clinically meaningful improvement in A1C - average absolute reduction in A1C of 0.57.

• DSMES is most effective when provided by a team (i.e. includes a diabetes educator)

• Group + individual appears to be the most effective mode of DSMES delivery

• DSMES improves A1C across the range of baseline A1C though more effective in those in poorer control (A1C > 9)

• >10 hours of DSMES better insures efficacy of the intervention
2016 DSME Data from AADE/DEAP

Annual Status Reports from 614 programs that reported A1C outcomes

From average of 8.6 to 7.3 (1.3% reduction)
DSME Benefits

1% reduction in A1C levels has been found to be associated with the following risk reductions:

- 21% Diabetes Related Deaths
- 14% Heart Attacks
- 37% Microvascular Complications (Eyes ~ Kidney ~ Nerves)

Diabetes Education Algorithm – Joint effort by AADE, ADA and AND

• Provides an evidence-based visual depiction of when to identify and refer individuals with type 2 diabetes to DSMES

• Defines 4 critical time points for delivery and outlines key information on the self-management skills that are necessary at each of these critical periods.

• Can be used by health care systems, staff, or teams, to guide when and how to refer to and deliver diabetes education

• Can also be used by individuals with diabetes to point out important times to seek care
Four Critical Times for Referral

- New diagnosis of T2DM
  - Assess emotional response
  - Identify barriers
  - Focus on immediate questions, survival skills, provide support
- Annually
  - Assess knowledge, skills, behaviors
  - Particular focus on those at higher risk
  - Involve family members
  - Explore patient choices and problem solving skills

Complicating factors

- Diabetes complications and co-morbidities
- Physical limitations
- Psychosocial and emotional factors
- Social factors

Transitions

- Changes in age, health status, living condition, health insurance coverage
- Clear, written communications to connect all HCP, patient and family
Diabetes Self-Management Education and Support for Adults with Type 2 Diabetes:

**ALGORITHM of CARE**

ADA Standards of Medical Care in Diabetes recommends all patients be assessed and referred for:

- **NUTRITION**
  - Registered dietitian for medical nutrition therapy

- **EDUCATION**
  - Diabetes self-management education and support

- **EMOTIONAL HEALTH**
  - Mental health professional if needed

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**FOUR CRITICAL TIMES TO ASSESS, PROVIDE, AND ADJUST DIABETES SELF-MANAGEMENT EDUCATION AND SUPPORT**

1. **AT DIAGNOSIS**
   - Newly diagnosed. All newly diagnosed individuals with type 2 diabetes should receive DSME/S.
   - Ensure that both nutrition and emotional health are appropriately addressed in education or make separate referrals.

2. **ANNUAL ASSESSMENT OF EDUCATION, NUTRITION, AND EMOTIONAL NEEDS**
   - Needs review of knowledge, skills, and behaviors.
   - Long-standing diabetes with limited prior education.
   - Change in medication, activity, or nutritional intake.
   - HbA1c out of target.
   - Maintain positive health outcomes.
   - Unexplained hyperglycemia or hypoglycemia.
   - Planning pregnancy or pregnant.
   - For support to attain or maintain behavior change(s).
   - Weight and/or nutrition concerns.
   - New life situations and competing demands.

3. **WHEN NEW COMPLICATING FACTORS INFLUENCE SELF-MANAGEMENT**
   - Health conditions such as renal disease and stroke, need for steroid or complicated medication regimen.
   - Physical limitations such as visual impairment, dexterity issues, movement restrictions.
   - Emotional factors such as anxiety and clinical depression.
   - Basic living needs such as access to food, financial limitations.

4. **WHEN TRANSITIONS IN CARE OCCUR**
   - Living situation such as patient or outpatient rehabilitation or now living alone.
   - Medical care team.
   - Insurance coverage that results in treatment change.
   - Age-related changes affecting cognition, self-care, etc.

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When primary care provider or specialist should consider referral:

- Newly diagnosed. All newly diagnosed individuals with type 2 diabetes should receive DSME/S.
- Ensure that both nutrition and emotional health are appropriately addressed in education or make separate referrals.
- Needs review of knowledge, skills, and behaviors.
- Long-standing diabetes with limited prior education.
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# Diabetes Self-Management Education and Support for Adults with Type 2 Diabetes:

## Algorithm Action Steps

### Four critical times to assess, provide, and adjust diabetes self-management education and support

<table>
<thead>
<tr>
<th>AT DIAGNOSIS</th>
<th>ANNUAL ASSESSMENT OF EDUCATION, NUTRITION, AND EMOTIONAL NEEDS</th>
<th>WHEN NEW COMPLICATING FACTORS INFLUENCE SELF-MANAGEMENT</th>
<th>WHEN TRANSITIONS IN CARE OCCUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Answer questions and provide emotional support regarding diagnosis</td>
<td>- Assess all areas of self-management</td>
<td>- Identify factors that affect diabetes self-management and attain treatment and behavioral goals</td>
<td>- Develop diabetes transition plan</td>
</tr>
<tr>
<td>- Provide overview of treatment and treatment goals</td>
<td>- Review problem-solving skills</td>
<td>- Discuss impact of complications and successes with treatment and self-management</td>
<td>- Communicate transition plan to new health care team members</td>
</tr>
<tr>
<td>- Teach survival skills to address immediate requirements (e.g., use of medication, hypoglycemia treatment if needed, introduction of eating guidelines)</td>
<td>- Identify strengths and challenges of living with diabetes</td>
<td>- Establish DSME/S regular follow-up care</td>
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<tr>
<td>- Identify and discuss resources for education and ongoing support</td>
<td>- Make referral for DSME/S and medical nutrition therapy [MNT]</td>
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</tbody>
</table>

### Primary Care Provider/Endocrinologist/Clinical Care Team: Areas of Focus and Action Steps

- Develop diabetes transition plan
- Communicate transition plans to new healthcare team members
- Establish DSME/S regular follow-up 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 which content to provide and how:
  - Medication — choices, action, titration, side effects
  - Monitoring blood glucose — when to test, interpreting and using glucose pattern management for feedback
  - Physical activity — safety, short-term 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 cessation, 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 promoting 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 limitations, adapting to new self-management demands, and promote health and behavior change

- Identify needed adaptations in diabetes self-management
- Provide support for independent self-management skills and self-efficacy
- Identify level of significant other involvement and facilitate education and support
- Assist with facing challenges affecting usual level of activity, ability to function, health benefits and feelings 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

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Joint Position Statement Toolkit Available

Joint Position Statement Toolkit

The evidence is clear: Diabetes self-management education and support (DSMES) improves clinical outcomes. What was less defined was the key times when DSMES makes the greatest difference.

In 2015, AADE, the American Diabetes Association and the Academy of Nutrition and Dietetics, along with assistance from the National Diabetes Education Program, issued a joint position statement that defines the four times when a referral for DSMES is needed.

The organizations have taken the next step and created a toolkit to assist diabetes educators and others with sharing the information and recommendations included in the joint position statement.

Toolkit Materials

Diabetes Self-Management Education and Support in Type 2 Diabetes: A Joint Position Statement of the ADA, AADE and AND

Accreditation
Diabetes Self Management Education and Support Services

The Centers of Medicare & Medicaid Services (CMS) approved two National Accrediting Organizations (NAO)

1. AADE, approved in 2009
2. ADA has been providing recognition since 1986, became a NAO in 1997
Locations of accredited programs

- Outpatient Hospital
- Pharmacies
- Physician Offices
- Federally Qualified Health Clinics (FQHCs)
- Health Departments
- Community Health Centers and Clinics
- Indian Health Services (Tribal Communities)
- Virtual Program
- And more
How to Get Started?

Use the 10 National Standards as Your Guide

- Standard 1-Internal Structure
- Standard 2-Stakeholder Input
- Standard 3-Evaluation of Population Served
- Standard 4-Quality Coordinator Overseeing DSMES Services
- Standard 5-DSMES team

- Standard 6-Curriculum
- Standard 7-Individualization
- Standard 8-Ongoing Support
- Standard 9-Participant Progress
- Standard 10-Quality Improvement
To promote quality education for people with diabetes, the American Diabetes Association (ADA) endorses the National Standards for Diabetes Self-Management Education and Support®. If you are seeking reimbursement for diabetes education, it is appropriate to apply for ADA Recognition of your diabetes education program or service. Learn more about the benefits of ADA Education Recognition.

- Applying for Recognition
- Maintaining Recognition: Resources & Tools
- Recognition Toolkits & FAQs
- Education Recognition Program Monthly Q/A Conference Calls
- Application Resources: Instructions, Fees, Templates and Policies / Procedures

http://professional.diabetes.org/diabetes-education
Use application tools on website

https://www.diabeteseducator.org/practice/diabetes-education-accreditation-program-(deap)/applying-for-accreditation
Additional AADE Resources

- Workshops and Live Courses
  - Building your Diabetes Education and Prevention Program
  - Advanced Workshops – Beyond Accreditation – Sustainability
- State trainings
- Workforce training
- Online education: Webinars, courses, exam prep
- Career Path Certificate program
- Annual meeting

- Website resources: [www.diabeteseducator.org](http://www.diabeteseducator.org)
The National Diabetes Prevention Program
What is the CDC National Diabetes Program?

CDC National Diabetes Prevention Program (National DPP): Using the evidence-based Lifestyle Change Program to prevent or delay type 2 diabetes

The evidence based year-long program helps participants make real lifestyle changes such as eating healthier, including physical activity into their daily lives, and improving problem-solving and coping skills.
CDC National Diabetes Prevention Program:

- Evidence Based
- Year Long Program (2 Phases)
  - Months 1-6
  - Months 7-12
- Classroom Based
- Group Format

- In-person delivery & some approved online/virtual platforms
- To help those at high risk or very high risk prevent or delay type 2 diabetes.
Who Can Participate in the National DPP?
Eligibility Requirements:

OVERWEIGHT ADULTS:
Limited to persons ages 18 years and older with a BMI of 24 or greater (Asian Americans: 22 or greater)

ADULTS WITH PREDIABETES:
Participants must have prediabetes diagnosed through blood test (FPG, OGTT, HbA1c) or have a history of Gestational Diabetes (can be self reported)

OR

Eligible if screen positive for prediabetes based on National Diabetes Prevention Program Risk Test

A physician’s referral is not required to participate
CDC’s Four Components of the National DPP

National Diabetes Prevention Program

COMPONENTS

Training: Increase Workforce
Train the workforce that can implement the program cost effectively.

Recognition Program: Assure Quality
Implement a recognition program that will:
• Assure quality.
• Lead to reimbursement.
• Allow CDC to develop a program registry.

Intervention Sites: Deliver Program
Develop intervention sites that will build infrastructure and provide the program.

Health Marketing: Support Program Uptake
Increase referrals to and use of the prevention program.
AADE DPP IS the National DPP

AADE works with our network of sites, consultants and stakeholders to address and or assist within all four components of the National DPP
DSMES Sites and Diabetes Prevention Services

In the 2015 AADE survey completed by DEAP programs, 80.3% of DEAP sites reported that they implement a prevention program/service.

In the same survey, 0.42% responded that they were able to bill for and receive reimbursement for prevention services.
The AADE DPP Model: Implementing DPP within DSMES sites:

Nationally Certified DSMES Programs Guarantee:
- Large pool of eligible participants
- HIPAA compliance
- Oversight from a Diabetes Educator/CDE
- Educated DPP Lifestyle Coaches
- Third-party payment processing (NPI Number)
- Linkage with local primary care providers
- Strong background in diabetes
- Linkage with DSMES for people with type 2 diabetes
- Linkage to other clinical services as needed
In September 2016, The Diabetes Educator published a manuscript demonstrating the AADE DPP model over three years within 25 programs.

CDC created a customized AADE poster
As of May 2017, CDC’s Diabetes Prevention Recognition Program Registry:

1402 Recognized Programs

- 314 DEAP/ERP – About ¼ of the total number of DPRP programs that are also Certified Medicare DSMES Programs (AADE DPP model)
- 110 - Total number of DPRP’s that are Fully Recognized programs
  - Almost half of all fully recognized DPRP programs are also DSMES certified

Source: CDC DPRP Registry: https://nccd.cdc.gov/DDT_DPRP/Programs.aspx, May 2017
ADA's list of active ERP’s, May 2017
AADE list of active DEAP, May 2017
Insights After 4+ Years of Delivery:

Pro’s:
- Costs seem to be comparable to other large in-person DPP providers
- AADE DPP’s are meeting or exceeding DPRP requirements
- Our programs seem to have high rates of referral compared to others since they are already connected with local physicians in their DSME work and tend to have feedback loops already in place
- Have a streamlined ability to become Medicare DPP Suppliers

Challenges:
- AADE DPP Program Coordinators usually do not have the time, skills, contacts and resources to “sell” the program to new payers

Development of the AADE Prevention Network to address these challenges to support DPP programs for data and marketing
AADE model supports new coverage from Medicare: MDPP coming in 2018
Medicare Coverage of Prediabetes

CMS concluded that the National DPP:
- Increases health quality
- Reduces health care costs

DSMES Programs are already providing Diabetes Education for Medicare and are well suited and fast-tracked to be quality MDPP Suppliers
What can programs do now to prepare to be a MDPP Supplier/ DPP Provider?

✓ Decide system for DPP data collection and support network

✓ Develop Budget, business case, pricing, cost and ROI

✓ Apply and maintain CDC Recognition and attend webinars

✓ Begin to promote referrals, especially for Medicare covered lives, set up a provider referral loop

✓ Attend workshops, trainings, webinars and research Networks that offer services to prepare and support your program for successful and sustainable DPP implementation
DPP Services and Tools from AADE

- **Lifestyle Coach Trainings** - AADE is listed on CDC website as a LSC training entity

- **AADE Workshops** - Designed to help program coordinators to become a successful CDC DPRP and MDPP Supplier

- **AADE Prevention Network** - Subscribe to gain access to ongoing education, tools, payment, coverage information and access to a cloud-based participant data base analytics system (DAPS)

Diabeteseducator.org/dpp or Email dpp@aadenet.org to receive email updates.
DAPS | data analysis of participants system™

With your subscription to the AADE Prevention Network, you receive access to DAPS, a customized database for diabetes prevention programs.

DAPS is...

SECURE
- Cloud Based
- HIPAA Compliant
- SSL Certified
- Password Protected

CONVENIENT
- Dashboard format provides at-a-glance, live analysis of organization level, cohort level, site level and participant level data views with printer friendly formatting.
- Easy import of excel-based data
- One-click export into the CDC-required report format
- Ability to pull your own data in CSV format at any time

Visit: diabeteseducator.org/preventionsimplified
For more information:

Email: dpp@aadenet.org

http://www.diabeteseducator.org/dpp
Questions
Diabetes Self-Management Education

Tailoring to Your Population
Utilizing the AADE7 Self-Care Behaviors Framework
Targeted Assessment-Ask about:

- Other health problems
- Current health status-"How do you feel about your health right now?"
- Physical limitations
- Cultural influences
- Health Beliefs and Attitudes-"What are 3 things that come to mind when you think of diabetes?"
- Health Behaviors and goals-"What are some challenges you face when you try to eat healthy?" "How much physical activity do you do?" "What do you know about what your medication is for and how to take it?" "Do you have any goals for your health over the next year?"
- Support Systems-"Do you have anyone you can turn to for support in managing your diabetes or coping with it?"
- Financial status
Monitoring

- How to use a meter for testing blood sugar
- When are the best times to test
- What the numbers mean
- What to do if numbers are off target
- How to record results and keep track over time
- What other tests are needed to monitor health — BP, Cholesterol, kidneys, eyes, feet
Medications

- Why am I taking these medications?
- What will they do for me?
- How should I fit them into my schedule?
- Will they cause side effects?
- If so, what should I do?
Healthy Eating

- Counting carbs
- Reading food labels
- Portions/serving size
- Preventing high and low blood sugar
Being Active

Lowers blood sugar
Lowers cholesterol
Improves blood pressure
Lowers stress and anxiety
Improves mood

SIMPLE WAYS TO BE MORE ACTIVE:

AT HOME
Walk your dog and play fetch
Work in your garden
Clean your house
Lift weights, march in place or walk around the room while watching TV

AT WORK
Walk at lunch
Exercise in your chair
Take the stairs
Stand while on the phone, reading or eating
Talk face-to-face with your coworkers

WHEN YOU’RE OUT
Go dancing
Do tai chi
Take a walk after dinner
Park far away from the door
Wear a pedometer
Reducing Risks

- Don’t smoke
- See your doctor regularly
- Visit the eye doctor at least once a year
- Don’t forget the dentist
- Take care of your feet
- Listen to your body
Healthy Coping

- Being active
  - Walking the dog
  - Yoga

- Participating in faith-based activities or meditating
  - Praying
  - Meditating

- Pursuing hobbies
  - Fishing
  - Gardening

- Attending support groups
Problem Solving

THE DIABETES PROBLEM-SOLVING CYCLE:

- Learn from Experience
- Discuss Solutions
- Analyze and Evaluate
- Act
Checking Understanding

- Teach back- What is your understanding of what you need to do?

- How would you explain it to a friend?

- Return Demonstration

- Knowledge quiz pre and post
Small group activity:

**PAIR UP AND SELECT ONE TIP SHEET**

1. What are the potential problem areas around ____________ *(your selected AADE7 self-care behavior)* in your population?

2. What teaching tools other than handouts could you use to enhance learning for this topic?

3. What method would you use to check understanding?
Now each group *share with the others* at your table how you answered the 3 questions for your self-care behavior during the small group activity.
Thank You!

QUESTIONS???