Disclosure to Participants

- Notice of Requirements For Successful Completion:
  - Please refer to learning goals and objectives.
  - Learners must attend the full activity and complete the evaluation in order to claim continuing education credit/hours.
- Conflict of Interest (COI) and Financial Relationship Disclosures:
  - Presenter: Linda Siminerio, RN, PhD, FAAN, CDE – Research support from Becton Dickinson
  - Presenter: Joanne Gallivan, MS, RD – No COI/Financial Relationship to disclose.
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Results from the 2014 NDEP National Diabetes Survey and Implications for Practice

Learning Objectives

- Describe the NDEP National Diabetes Survey (NNDS) purpose, history, and 2014 enhancements.
- Describe 2014 survey findings.
- Explain how the NNDS informs NDEP’s messages and materials.
- Apply 2014 NNDS findings to education program planning.
National Diabetes Education Program

- U.S. Department of Health and Human Services program established in 1997
- Jointly sponsored by National Institutes of Health and Centers for Disease Control and Prevention with over 200 public and private partners
- NDEP’s goal is to improve the treatment and outcomes for people with diabetes, promote early diagnosis, and prevent or delay the onset of type 2 diabetes

NDEP National Diabetes Survey (NNDS)

- Periodic survey of US adults
- Probability-based population survey
- Provides information on diabetes-related knowledge, attitudes and behaviors

NNDS: History and Purpose

- Prior Surveys:
  - In 2006, first NNDS conducted on adults ages 45+
  - Two additional rounds conducted in 2008 and 2011; age range expanded to ages 35+
- 2014 NNDS:
  - Increased focus on perceived risk of diabetes, and diabetes prevention and management behaviors

NNDS 2014: Sample

- Sample of nationally-representative US adults ages 35+
- Address-based sampling (ABS)—current industry “Gold standard”
- Oversamples: African-Americans, Hispanics
- Target of 2,500 respondents

NNDS 2014: Methodology

- Online (web) survey in English or Spanish
- Field period: December 10-19, 2014
- Survey link sent via email to sample

NNDS: Diabetes Status

- Determined post hoc using survey data
  - Person with Diabetes (PWD)
  - Person with Prediabetes (PWP)
  - Person at Risk (PAR)
  - All Others (not PWD, PWP, PAR, but can include people with a family history of diabetes)
**NNDS 2014: Respondent Profile**

<table>
<thead>
<tr>
<th>Diabetes Status</th>
<th>Age Group (years)</th>
<th>Race/Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWD</td>
<td>15% 35-44</td>
<td>Hispanic 13%</td>
</tr>
<tr>
<td>PWP</td>
<td>13% 45-64</td>
<td>African-American 10%</td>
</tr>
<tr>
<td>PAR</td>
<td>43% 65+</td>
<td>White 70%</td>
</tr>
<tr>
<td>All others</td>
<td>29%</td>
<td>All others 7%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>Total 100%</td>
</tr>
</tbody>
</table>

**NNDS 2014: Preliminary Results**

77% Aware Diabetes can be Prevented

- Total: 77%
- African-Americans: 71%
- Hispanics: 72%
- Whites: 80%
- All others: 64%

- No significant differences by age group
- No significant change overall since 2008

"Do you think the following health problems can be caused by diabetes?"

- Depression: 65%
- High blood pressure or hypertension: 62%
- Memory loss, dementia: 50%
- High cholesterol: 50%
- Sleep apnea or short pauses in breathing while sleeping: 44%

"Of the health problems you think can be caused by diabetes, which do you think are the 3 most serious problems?"

- Death: 55%
- Amputation: 49%
- Blindness: 47%
"Of the health problems you think can be caused by diabetes, which do you think are the 3 most serious problems?" (cont’d)

- 45% selected stroke, heart attack, heart condition, or heart disease as one of the 3 most serious health problems
  - Hispanics were significantly less likely to choose a CVD-related problem as a top serious health problem

Discussion Questions:

Why don’t people seem to associate diabetes with cardiovascular disease?

Why are blindness and amputation so often mentioned?

Health Care Coverage

- 89% reported health care coverage for all or part of their medical care
  - 38% reported their health care coverage included exercise, weight loss, or wellness programs
  - 40% did not know whether these programs were covered by their health care or health insurance

For People with Diabetes (PWD)

Heard of A1C (PWD)

78% heard of A1C in 2014 compared to 63% in 2008

Heard of A1C (PWD): Race/Ethnicity

78 86 60 82
65
2014
2014
A1C (PWD)
Diabetes Educators (PWD)
- Of people diagnosed with diabetes who reported having a usual health care provider...
  - 7% reported regularly seeing a Diabetes Educator in addition to their usual provider

Diabetes-related Education or Counseling (PWD)
In the prior 12 months, 63% received advice/counseling about how to prevent other health problems caused by diabetes from:

- Doctor: 94%
- Family Member: 45%
- Diabetes Educator: 39%
- Registered Dietitian: 23%

Diabetes Educators: Advice Types (PWD)
- PWD received comprehensive advice or counseling from their Diabetes Educator:
  - Control/lose weight: 95%
  - Reduce calories/portions: 92%
  - Increase activity: 90%
  - Follow meal plan: 90%
  - Take your medicine: 86%
  - Visit your doctor regularly: 85%

“In general, would you say your way of managing your diabetes has usually been effective, sometimes been effective, or not been effective?” (PWD)
- Usually effective (67%)
- Sometimes effective (27%)
- Not effective (6%)

Diabetes Management (PWD)
Reported activities in prior 6 months:
- Diet/Weight: Managing/Losing weight (93%), reducing calories (90%), following meal plan (82%)
- Physical activities/sports: Light/Moderate activities (89%), more exercise (76%), vigorous activities (35%)
- Medication: Taking/Using diabetes medicines (e.g., Metformin, insulin) as prescribed (84%)

Confident with Activities (PWD)
- Monitoring blood sugar
  - Not at all confident: 8
  - Somewhat confident: 7
  - Moderately confident: 22
  - Very confident: 28
  - Totally confident: 35

- Exercising
  - Not at all confident: 19
  - Somewhat confident: 21
  - Moderately confident: 20
  - Very confident: 16
  - Totally confident: 24

- Following your diet
  - Not at all confident: 5
  - Somewhat confident: 17
  - Moderately confident: 28
  - Very confident: 24
  - Totally confident: 26
Confident Knowing What to Do when Blood Sugar too High or too Low (PWD)

- Hyperglycemia
- Hypoglycemia

Distress with Diabetes (PWD)

- Possible Long-term Complications
- My Diabetes Routine
- Demands of Living with Diabetes

Diabetes Tools (PWD)

Recent Tools or Resources Used to Help Manage Diabetes

- Paper calendar, diary, or journal: 34
- Online health or diabetes information websites: 13
- Electronic calendar, diary, app, or journal, etc.: 9
- Online peer-led support or chat groups: 4
- Email listserv: 3
- In-person, health professional-led support group: 3
- Text-messaging support program: 3
- Telephone-based support program: 2
- Online videos (e.g., YouTube): 2
- In-person peer-led support group: 2

Do you use social media (e.g., Facebook, Twitter) to help you learn about or manage your diabetes? (PWD)

- 87% do not use social media for diabetes management
- Younger PWD reported greater use*
  - 27% ages 35-44 years use “often” or “once in a while”
  - 12% ages 45 years and older use “often” or “once in a while”

* Differences by age were not statistically significant

For People Not Diagnosed with Diabetes

People with Prediabetes (PWP)
People at High Risk (PAR)
“All others”
19% received advice/counseling in the prior 12 months about how to prevent diabetes from:

- Doctor: 91
- Family Member: 39
- Registered Dietitian: 14
- Diabetes Educator: 13

Perceived Risk (among PWP & PAR)
Felt at Risk of Type 2 Diabetes

<table>
<thead>
<tr>
<th>Year</th>
<th>PAR</th>
<th>PWP</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>47</td>
<td>73</td>
</tr>
<tr>
<td>2011</td>
<td>33</td>
<td>61</td>
</tr>
<tr>
<td>2008</td>
<td>30</td>
<td>67</td>
</tr>
</tbody>
</table>

Preventive Actions (PWP & PAR)

- 54% of people not diagnosed with diabetes were doing something in the prior 12 months to reduce their chance of getting diabetes
- PWP (79%) were significantly more likely to take actions than PAR (47%)

Preventive Actions Taken (PWP & PAR)

<table>
<thead>
<tr>
<th>Action</th>
<th>PWP</th>
<th>PAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing/losing weight</td>
<td>92</td>
<td>91</td>
</tr>
<tr>
<td>Reducing calories/portions</td>
<td>89</td>
<td>91</td>
</tr>
<tr>
<td>Walking</td>
<td>80</td>
<td>75</td>
</tr>
<tr>
<td>Doing light/moderate activities</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>Increasing exercise</td>
<td>71</td>
<td>67</td>
</tr>
<tr>
<td>More physical activity into day</td>
<td>67</td>
<td>67</td>
</tr>
<tr>
<td>Taking medicines</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>Doing vigorous activities</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Plan for bariatric surgery</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Preventive Classes or Programs (PWP & PAR)

- 3% of PWP & PAR reported attending classes, programs, coaching or counseling to help them prevent/delay their chance of getting diabetes
- Nutrition, exercise, weight loss, and health/wellness were most frequently named types of classes
Reasons Not Likely to Act to Reduce Chance of Diabetes (PWP & PAR)

- Not thought about it before: 49%
- Some other reason: 32%
- Don’t know what else to do: 31%
- Other things more important: 26%
- Won’t make a difference: 18%
- Don’t have time: 15%
- Too busy: 15%
- No money for diabetes education: 15%
- Don’t have support from friends/family: 10%
- Gave up trying: 4%

NNDS 2014: Preliminary Summary

- Doctors, family/friends appear to play large role in providing advice/counseling on diabetes prevention and management
- Awareness of link between diabetes and heart disease is low
- Regular care by a diabetes educator is low
- Social media not widely used for diabetes management among PWD; Paper tools remain popular

Preliminary Summary (cont’d)

- Diabetes prevention awareness remains high for all racial/ethnic groups--disparities still exist in some indicators
- Nearly half of those at risk do not feel at risk of type 2 diabetes
- Most people at greatest risk were taking some action to prevent diabetes
- Knowing their prediabetes diagnosis seems to influence behaviors

Using NNDS Results

- Address diabetes distress
  - Ask “What is hardest for you?” or “How is diabetes affecting your life?”
  - PAID or PAID-5 tool
  - Include family members
- Remember, to patients diabetes is all one thing
  - An integrated medical and psychosocial condition

Using NNDS: Diabetes Management

- Build patient’s confidence in self-management behaviors with skill-building activities and/or use of teach back method
  - Develop more specific exercise plans, addressing potential obstacles
  - Reinforce treatment for hypo or hyperglycemia
- Most popular tools are still paper based
Managing Diabetes. It’s Not Easy, But It’s Worth It

Using NNDS: Diabetes Management
- Emphasize CVD & diabetes link early in education process
- Include health coverage in education curriculum
  - Help patients understand what is covered
  - Help uninsured patients identify resources
- Increase use of diabetes educators
  - Only 7% of PWD regularly see a diabetes educator
  - Opportunities for expanded services

Be Smart About Your Heart
- NNDS results show lack of awareness of diabetes and CVD link

Using NNDS: Diabetes Prevention
- Help patients make the link between family history and diabetes risk
  - Encourage your patient’s family members to be screened for type 2 diabetes
    - Provide Risk Tests in waiting room or give to patients to share with family members.
  - Encourage family-based interventions for food and exercise

Using NNDS: Diabetes Prevention
- People with a prediabetes diagnosis were more likely to take action to reduce chance of diabetes
  - Work with primary care settings to identify patients with prediabetes and offer a next step
  - Be familiar with prevention programs or resources in your area

Family History Campaign
- Help patients make the link between family history and diabetes risk
  - Encourage your patient’s family members to be screened for type 2 diabetes
    - Provide Risk Tests in waiting room or give to patients to share with family members.
  - Encourage family-based interventions for food and exercise

- People with a prediabetes diagnosis were more likely to take action to reduce chance of diabetes
  - Work with primary care settings to identify patients with prediabetes and offer a next step
  - Be familiar with prevention programs or resources in your area

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    - Provide Risk Tests in waiting room or give to patients to share with family members.
  - Encourage family-based interventions for food and exercise
Support for Behavior Change

• Diabetes HealthSense
• Promoting Medication Adherence in Diabetes
• GAME PLAN for Preventing Type 2 Diabetes: A Toolkit for Health Care Professionals and Teams

Coming Soon:
YourDiabetesInfo.org/DiabetesMonth2015

Diabetes Self-Management Education and Support in Type 2 Diabetes: A Position Statement of the American Diabetes Association
Thank You!

• NDEP website: www.YourDiabetesInfo.org

• Please visit Booth # 342