DIABETES PREVENTION PROJECT

A NORTH CAROLINA APPROACH
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Objectives

- Review epidemiology, screening and diagnosis of diabetes
- Explain Diabetes Prevention Program
- Identify available community resources for diabetes prevention in North Carolina
Diabetes Prevalence (2018)

- **Prevalence**: 34.2 million Americans, or 10.5% of the population
  - **Diagnosed**: 26.8 million
  - **Undiagnosed**: 7.3 million

- **Prevalence in seniors (age ≥ 65)**: 26.8%, or 14.3 million seniors

- **New cases**: 1.5 million Americans are diagnosed with diabetes every year.
Cost of Diabetes 2007-2017

The Staggering Costs of Diabetes

More than 30 million Americans have diabetes
Health care costs for Americans with diabetes are 2.3x greater than those without diabetes

$1 in $7
Health care costs for people living with diabetes and its complications

84 million Americans have prediabetes

Today, 47 million Americans will be diagnosed with diabetes. Additionally, diabetes will cause 850,000 Americans to undergo an amputation and 10% will die or stage 6 organ disease or disease treatment.

Learn how to fight this costly disease at diabetes.org/congress

American Diabetes Association.

Average Cost of Diabetes 2007-2017

Cost per person with diabetes (2017 dollars)

Year
2007
2012
2017

$7,811
$8,417
$9,601

Direct medical costs
Indirect costs

North Carolina Medical Society
Leadership in Medicine

Diabetes Care 2018 May; 41(5): 917-928
Projected Prevalence of Diabetes in the United States: 1990 to 2050

Number (millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Undiagnosed</th>
<th>Diagnosed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990¹</td>
<td>6.6</td>
<td></td>
</tr>
<tr>
<td>2000¹</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>2010²</td>
<td>21</td>
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<tr>
<td>2020³</td>
<td>37.9</td>
<td>12.7</td>
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<td>2030³</td>
<td>55.5</td>
<td>13.1</td>
</tr>
<tr>
<td>2040³</td>
<td>71.2</td>
<td>13.3</td>
</tr>
<tr>
<td>2050³</td>
<td>86.6</td>
<td>13.7</td>
</tr>
</tbody>
</table>

Diabetes – Tip of the iceberg

Diabetes: 34.2 million people have diabetes (10.5% of the US population)

Prediabetes: 88 million adults aged 18 years or older have prediabetes (34.5% of the adult US population)

National Diabetes Statistics Report 2020 (CDC)
WHO’S AT RISK for prediabetes or type 2 diabetes?

You could have prediabetes or type 2 diabetes and not know it—there often aren’t any symptoms. That’s why it makes sense to know the risk factors:

- 45+ years old
- Physically active less than 3 times/week
- Family history of type 2 diabetes
- High blood pressure
- History of gestational diabetes*
- Overweight

*Diabetes during pregnancy. Giving birth to a baby weighing 9+ pounds is also a risk factor.

DID YOU KNOW... African Americans, Hispanic/Latino Americans, American Indians/Alaska Natives, Pacific Islanders, and some Asian Americans are at higher risk.

If you have any of the risk factors, ask your doctor about getting your blood sugar tested.
Age-adjusted Prevalence of Obesity and Diagnosed Diabetes Among US Adults

Obesity (BMI ≥30 kg/m²)

1994

2000

2015

Diabetes

1994

2000

2015

CDC’s Division of Diabetes Translation. United States Surveillance System available at http://www.cdc.gov/diabetes/data
Prediabetes Risk Test

1. How old are you?
   - Younger than 40 years (0 points)
   - 40–49 years (1 point)
   - 50–59 years (2 points)
   - 60 years or older (3 points)

2. Are you a man or a woman?
   - Male (1 point)
   - Female (2 points)

3. If you are a woman, have you ever been diagnosed with gestational diabetes?
   - Yes (1 point)
   - No (2 points)

4. Do you have a mother, father, sister, or brother with diabetes?
   - Yes (1 point)
   - No (3 points)

5. Have you ever been diagnosed with high blood pressure?
   - Yes (1 point)
   - No (2 points)

6. Are you physically active?
   - Yes (1 point)
   - No (3 points)

7. What is your weight category?
   - Total score:

   **National Diabetes Prevention Program**

   **Do I have Prediabetes?**

   More than 1 in 3 American adults have prediabetes, which can lead to type 2 diabetes, and 80% don’t know they have it. In North Carolina alone, 34.3% of adults have prediabetes. Find out if you may have prediabetes with just a few quick questions.

   **Step 1: Take the prediabetes risk test.**
   - Take the 1-minute prediabetes risk test today by using the QR code or visiting diabetes.org/free-northcarolina.
   - Open the QR code on your smart phone’s camera and follow the instructions that appear.

   **Step 2: What does your score mean?**
   - If you scored 5 or higher, you are at increased risk for having prediabetes or type 2 diabetes. However, only your doctor can tell you if you have prediabetes or type 2 diabetes. Talk to your doctor about whether you need to take additional tests.
   - If you are diagnosed with prediabetes, there are options to help prevent or delay progression to type 2 diabetes such as the CDC-recognized lifestyle change program that is part of the National Diabetes Prevention Program. This program is designed for your success and is part of the Diabetes-FreeNC Initiative to end diabetes in the state. Over the course of a year, you’ll work with a lifestyle coach that will teach you how to eat healthy, stay active, and manage stress on your journey to a healthier future.

   **Step 3: Contact a Diabetes-FreeNC team member at (844) 328-6021.**

   A team member from Diabetes-FreeNC can help you learn more about the National Diabetes Prevention Program and answer any questions you may have. They can also help you find a free or low-cost program offered virtually or in-person throughout North Carolina.

   For more information about finding a program in North Carolina, visit diabetes.org/free-northcarolina.
THE ROAD TO TYPE 2 DIABETES

A1C TEST

DIABETES
6.5% or above

PREDIABETES
5.7 – 6.4%

NORMAL
Below 5.7%

FASTING BLOOD SUGAR TEST

126 mg/dL or above

100-125 mg/dL

99 mg/dL or below

GLUCOSE TOLERANCE TEST

200 mg/dL or above

140-199 mg/dL

140 mg/dL or below

Source: American Diabetes Association

North Carolina Medical Society
Leadership in Medicine
Diabetes Prevention Program (DPP) & DPP Outcomes Study (DPPOS)

DPP

10-year follow-up

15-year follow-up

Metformin  Intensive lifestyle intervention

31%  58%

18%  34%

18%  27%
The National DPP lifestyle change program helps participants make sustainable, healthy lifestyle changes and achieve weight loss to lower their risk of developing type 2 diabetes.
Understanding the National DPP lifestyle change program

- Trained lifestyle coaches teach group classes
- Programs deliver a CDC-approved curriculum
- Emphasis on prevention and empowerment through a personal action plan
- Quality assurance through the Centers for Disease Control and Prevention (CDC); programs are required to submit data on participant outcomes

*Key standard for CDC recognition: Average participant body weight loss of 5%.*
North Carolina

Over 50% of adults are overweight or obese.

An estimated 2.8 million adults have prediabetes. That’s 34.6% of our state population.

Figure 1. Prevalence of modifiable risk factors for prediabetes, North Carolina, 2015

Data Source: North Carolina State Center for Health Statistics. Behavioral Risk Factor Surveillance System (BRFSS) schs.state.nc.us/data/bfrss/survey.htm
National DPP referral options in NC

http://ourcommunityhealthinitiative.org/diabetesfreenc/

https://diabetesfreenc.com/

https://nccare360.org/

*Availability of referral options may vary depending on your location and organization.
DiabetesFreeNC
Bi-directional feedback loop ensures continuity

Referring Provider

Referral to a DPP provider:
Patient’s name, contact information, lab values, etc.

Program Provider

Feedback on the patient’s status:
Enrollment, attendance, progress, program completion.
American Medical Association (AMA) resources

9 out of 10 adults who have prediabetes don’t know they have it

What is prediabetes?
Prediabetes is a condition in which blood glucose levels are higher than normal but not high enough to be diagnosed as type 2 diabetes.

Practical AMA resources to prevent type 2 diabetes while earning CME

amapreventdiabetes.org
AMA resource: Return on Investment (ROI) calculator

Estimate the medical cost savings of prioritizing diabetes prevention for your patients with prediabetes.

https://ama-roi-calculator.appspot.com/
North Carolina is taking a stand against diabetes

Join us

- American Medical Association
- North Carolina Medical Society
- Centers for Disease Control and Prevention
- BlueCross BlueShield of North Carolina
- NC Division of Public Health
- North Carolina State University
- NC Department of Health and Human Services
- North Carolina Academy of Family Physicians
- University of North Carolina (UNC) School of Medicine
- University of North Carolina Asheville
- Wake Forest Baptist Medical Center
- ECU Brody School of Medicine
- LabCorp
- NC Alliance of YMCAs
- NC Community Health Center Assn
- NC Diabetes Advisory Council
- NC Division of Aging
- NC Division of Health Benefits
- NC Healthcare Association
- NC Office of Minority Health
- NC State Health Plan
- UnitedHealthcare

Thank you!