South Carolina Hospital Association

upstream solutions

Dr. Rick Foster
South Carolina Hospital Association
Alliance for a Healthier South Carolina
What is Prediabetes?

Prediabetes is defined as having a blood sugar level higher than normal, but not high enough for a diagnosis of diabetes.\(^1\) Prediabetes is also referred to as borderline diabetes.
Prevalence of Prediabetes Among Adults by Demographics, SC 2015

Data Source: SC BRFSS, PHS, DHEC
References:
Fact Sheet Prepared by Chronic Disease Epidemiology, Bureau of Chronic Disease and Injury Prevention, SC DHEC, 2100 Bull St., Columbia, SC 29201 (803) 898-0584 May 2017
Prediabetes Fact Sheet

What is prediabetes? Prediabetes is defined as having blood sugar levels higher than normal, but not high enough for a diagnosis of diabetes. Prediabetes is also referred to as borderline diabetes.

Why is it important? According to a 2012 national survey, 37 percent of U.S. adults have prediabetes and nearly 96 percent of adults who have prediabetes don’t know that they have it.

People with prediabetes are more likely to develop type 2 diabetes, heart disease, and stroke.

Type 2 diabetes is a serious condition that can lead to health issues such as:
- Heart disease and heart attack
- Stroke
- Blindness
- Nerve damage
- Kidney disease
- Loss of toe, foot, or leg

Without lifestyle changes to improve their health, 15 percent to 30 percent of people with prediabetes will develop type 2 diabetes within five years.

A 2014 study estimated medical costs for South Carolina adults with prediabetes were $167 million in 2012.

How many people in South Carolina have prediabetes? According to the 2015 South Carolina Behavioral Risk Factor Surveillance System (SCBRFSS), more than 330,000 adults over age 18 have prediabetes. This prevalence has risen from 6.7 percent in 2011 to 8.8 percent in 2015.

Who is at risk for prediabetes in SC?
- Older Adults: Prediabetes is more common among older adults. Twelve percent of adults age 45 and older have prediabetes. This age group is 2.5 times more likely to have prediabetes than ages 11 to 44.
- Overweight or obese adults: Eleven percent of adults categorized as overweight or obese have prediabetes.
- Adults who are physically inactive: Of these adults who engaged in no leisure-time physical activity, 12 percent have prediabetes.
- Adults with hypertension: Fifteen percent of adults with hypertension also have prediabetes.

How is prediabetes diagnosed?
There are several blood tests that can be done to diagnose prediabetes:
- A fasting blood glucose
- Glucose tolerance test
- Hemoglobin A1C test

Who should be tested for prediabetes?
- Those who are 45 years of age or older
- Those who are overweight or obese
- Those with a family member with diabetes
- Those who are physically inactive
- Those who have high blood pressure
- Women who had diabetes while pregnant
- Women who had a baby weighing more than 9 pounds

Who has been tested for diabetes in SC?
In 2015, 59 percent of adults reported being tested for diabetes in the last three years, and of those ages 45 and older, 66 percent were tested.
- Of those physically inactive, 56 percent were tested
- Of those with hypertension, 70 percent were tested
- Of those overweight, 69 percent were tested
- Of those obese, 67 percent were tested
- More adults with insurance were tested

What to do if diagnosed with prediabetes?
Research shows that doing the following things can help prevent or delay type 2 diabetes:
- • Improve food choices
- • Lose 5 percent to 7 percent of body weight
- • Get at least 150 minutes of physical activity each week

National Diabetes Prevention Program in SC
The National Diabetes Prevention Program (DPP) is a Centers for Disease Control and Prevention (CDC) evidence-based program. It features an approach that is proven to prevent or delay type 2 diabetes and includes:
- Training lifestyle coaches
- CDC-approved curriculum
- Group support
- Weekly group meetings
- 8-week walk group
- 6-month follow-up meetings to maintain healthy lifestyle changes

The Division of Diabetes, Heart Disease, Obesity and School Health within the Bureau of Chronic Disease and Injury Prevention would like to partner with organizations to reduce the number of people developing type 2 diabetes. Through this partnership, we can help improve the quality of chronic care delivered and prevent or delay the onset of type 2 diabetes among people with prediabetes.

To find the nearest National DPP site visit:
https://www.cdc.gov/diabetes/prevention/locallist.asp#STATE=SC

To learn more about the National DPP visit:
http://www.cdc.gov/diabetes/prevention/about/index.html
or email ndpp@scdhec.sc.gov

Prediabetes Fact Sheet by Chronic Disease Epidemiology, Bureau of Chronic Disease and Injury Prevention, SC DHEC, 2101 Bull St., Columbia, SC 29201 / 803-886-8684 May 2017


Note:
- Prediabetes, also called impaired glucose tolerance, is not the same as diabetes. It is a condition in which blood glucose levels are higher than normal, but not high enough to be diagnosed as diabetes.
- Prediabetes increases the risk of developing type 2 diabetes, heart disease, and stroke. It can also increase the risk of developing complications such as blindness, kidney failure, and nerve damage.
- Prediabetes is often preventable with lifestyle changes such as eating a healthy diet, regular physical activity, and not smoking.
- The American Diabetes Association recommends that adults with prediabetes check their blood glucose levels at least once every 3 months to see if their condition has improved or worsened.

Note:
- National Diabetes Prevention Program (DPP) is a program that helps people with prediabetes lose weight and increase physical activity to improve their health and reduce their risk of developing type 2 diabetes.
- The program is based on scientific evidence that has shown that lifestyle changes can prevent or delay the onset of diabetes.
- The program is offered by local health departments, hospitals, clinics, and community organizations.
- The program is free or low-cost.
- Participants receive support and guidance from trained lifestyle coaches.
- The program includes weekly group meetings, personalized advice, and tools and resources to help people make healthy lifestyle changes.
- Participants also receive a physical activity and nutrition guide.
South Carolina’s Diabetes Prevention Toolkit for Physicians and Health Care Teams.

Gerald A. Wilson, MD
Helga E. Rippen, MD, PhD, MPH, FACPM
About the Presenters

- **Dr. Wilson**
  - Chair of the Diabetes Advisory Council of SC (DAC)
  - Palmetto Medical, Dental & Pharmaceutical Association
  - National Medical Association
  - American Medical Association
  - South Carolina Medical Association

- **Dr. Rippen**
  - Chair of Pillar I: Physician Engagement, DAC

*There are no financial relationships that may pose a conflict of interest*
Objectives

- Understand prediabetes and its relationship to Type II Diabetes Mellitus, its etiology, prevalence and increasing impact in South Carolina
- Become familiar with the components of the Diabetes Prevention Toolkit and the evidence-based best practices to evaluate, test and treat prediabetes.
- Learn how to leverage the different components of the Diabetes Prevention Toolkit with your health care team
- Engage patients in the National Diabetes Prevention Program and/or interventions to address prediabetes
Topics

- Why prediabetes?
- What is the Diabetes Prevention Toolkit?
- How can I implement it most effectively in my practice?
Diabetes is a Health Challenge in South Carolina
South Carolina Has a High Prevalence of Diabetes and Related Deaths

- 1 in 8 adults 18yo+ have diabetes
- 1 in 4 over 65yo+ have diabetes
- 7th in nation for both diabetes prevalence and related deaths

There are Large Health Equity Gaps for Diabetes in South Carolina

- Impacts minorities disproportionately
  - 1 in 6 African-Americans (3rd highest in the nation) versus 1 in 9 for white adults
  - African American death rate twice that of whites
- Impacts those with low income
  - 1 in 5 adults with <$15K annual household income

Diabetes Costs Will Become an Increasing Burden to South Carolina

- Diabetes costs have increased by 33% in the past 5 years in South Carolina. Medicare and Medicaid paid for more than 2/3 of this cost
- 2014: 25,000 diabetes-related ED visits ~$400 million
- 2015: total cost of care estimated $3 Billion → $4 billion by 2020

Progression from Prediabetes to Diabetes
Prediabetes definition

A reversible condition in which plasma glucose levels are higher than normal but not high enough to diagnose type 2 diabetes

There are 3 standard test options to identify prediabetes.

- **A1C (percent)**
  - Diabetes: 6.5+
  - Prediabetes: 5.7–6.4
  - Normal: <5.7

- **Fasting Plasma Glucose (mg/dL)**
  - Diabetes: 126+
  - Prediabetes: 100–125
  - Normal: <100

- **Oral Glucose Tolerance (mg/dL)**
  - Diabetes: 200+
  - Prediabetes: 140–199
  - Normal: <140
Why Prediabetes?

Frank’s disease progression
- 2003 Prediabetes age 55
- 2006 Type 2 Diabetes
- 2010 Retinopathy
- 2012 Chronic Kidney Disease
- 2016 MI and Death

...because we can stop the progression
Implementing a diabetes prevention initiative

Katherine Johnson MD
Conflict of interest

There are no financial relationships that may pose a conflict of interest
Objectives

- Outline the considerations for implementing a diabetes prevention initiative in a physician practice
Tidelands Health Diabetes Center

- Our clinic has two M.D.’s and one advanced practitioner
- 1 in-house Dietician/Diabetes Educator who is also trained as a DPP facilitator
- Clinic demographic:
  - 70% Type 2 Diabetes
  - 10% Type 1 Diabetes
  - 11% Prediabetes (“Impaired Glucose Tolerance”)
  - 9% No documented diabetes or IGT.
- Our clinic has 1 DPP class already launched. Tidelands Health has three classes going in total so far.
5 steps to set up a successful Diabetes Prevention Program

✓ Create awareness
✓ Identify patients with prediabetes
✓ Educate at-risk patients
✓ Refer patients with prediabetes to an evidence-based diabetes prevention program
✓ Follow up on patient progress

Resources for these steps can be found pre-formed in the SC DAC Toolkit.
The Diabetes Prevention Toolkit

- Provides information and tools to facilitate the evaluation, testing and treatment of prediabetes to physicians and their health care team
- Reinforce evidence-based best practices
- Educational forms for patients ready made
- Facilitate referral to a Diabetes Prevention Program where available
Toolkit divided into three major sections

For the Physician and Health Care Team
The tools included in this section support your work as physicians and members of a health care team as you evaluate, test and treat patients with prediabetes.

H indicates handout for this section

Pages in this category are indicated with a page number and “HC”

For the Patient
The tools found under this section include educational materials for patients with prediabetes, information about the National Diabetes Prevention Program (National DPP) and a paper-based screening test your patients may bring to you.

H indicates handout for this section

Pages in this category are indicated with a page number and “P”

For More Information
The information provided in this section provides details about the National DPP, how to become a site, a reference/resource list and contact information relevant to the program.

Pages in this category are indicated with a page number and “I”
5 steps to set up a successful Diabetes Prevention Program

✓ Create awareness
✓ Identify patients with prediabetes
✓ Educate at-risk patients
✓ Refer patients with prediabetes to an evidence-based diabetes prevention program
✓ Follow up on patient progress

Resources for these steps can be found **pre-formed** in the SC DAC Toolkit.
Step 1: Create Awareness

Physician Awareness

Staff Awareness

Patient Awareness
Step 2: Identify Patients

Point-of-care prediabetes identification

MEASURE
- If patient is age ≥18 and does not have diabetes, provide self-screening test (CDC Prediabetes Screening Test or ADA Diabetes Risk Test)
- If self-screening test reveals risk, proceed to next step

Review medical record to determine if BMI ≥25 or A1C is ≥5.7%

YES

NO

If no: Patient does not currently meet program eligibility requirements

Determine if a HbA1C test was performed in the past 12 months

YES

NO

Order one of the tests below:
- HbA1C
- Fasting plasma glucose (FPG)
- Oral glucose tolerance test (OGTT)

Diagnostic test

Normal

Prediabetes

Diabetes

HbA1C (%)

< 5.7

5.7–6.4

≥ 6.5

Fasting plasma glucose (mg/dL)

< 100

100–125

126

OGTT glucose tolerance test (mg/dL)

< 140

140–199

≥ 200

RESULTS

MEASURE

Query EMR or patient database every 6–12 months using the following criteria:

A. Inclusion criteria:
- Age ≥18 years
- Most recent BMI ≥25 or A1C ≥5.7%
- A positive lab test result within previous 12 months
- History of gestational diabetes (ICD-10-E89.31)

B. Exclusion criteria:
- Current diagnosis of diabetes (ICD-10-E10.0) or
- Current insulin use

GENERATE a list of patient names with relevant information

ACT

Use the patient list to:

A. Contact patients to inform of risk status, explain prediabetes, and share info on diabetes prevention programs, and

B. Send patient info to diabetes prevention program provider
- Program coordinator will contact patient directly, and

C. Flag medical record for patient’s next office visit

PARTNER

Discuss program participation at next visit
To Start Out...

Our clinic felt the best way to get off the ground was to identify the patients we had already identified as pre-diabetic and “hit the ground running” with starting 1-2 classes.
Going Forward...

Our clinic is choosing to do POC testing for appropriate patients at **Annual Wellness visits** and **New Patient visits** going forward to avoid screening/rescreening patients at every visit.

First POC testing will be free at our clinic to patients to encourage initial by-in to testing.
Step Three: Educate at-risk patients

- Resources for clinicians...
- This information provides some guidance on motivational interviewing and the Dos and Don’ts.
- This is a great resource for practices who want to improve their counseling abilities and do not have a National DPP site available.

### How to Talk with Patients about Their Prediabetes Diagnosis

**Start the conversation**

Awareness of a diagnosis of prediabetes offers an extraordinary opportunity to prevent or delay progression to type 2 diabetes. Health care teams should offer clear communication that prediabetes places an individual at high risk for development of the disease, but that known, effective treatments are available to prevent or delay progression to type 2 diabetes. Unfortunately, limited resources, competing priorities, or time demands may be a barrier to thorough discussion of type 2 diabetes prevention. It is important to consider that preventing type 2 diabetes will reduce burden on the patient. Patients who make the necessary lifestyle changes for type 2 diabetes prevention can also have improvements in well-being as well as the management of a broad spectrum of health conditions (cardiovascular disease, metabolic syndrome, hypertension, lipids, depression, physical function, etc.)

**DOs and DON'Ts for the Initial Conversation about Prediabetes**

If a patient has been identified as having prediabetes, the leader of the health care team (physicians, nurse practitioners, or physician assistants) should engage the patient in a discussion about the diagnosis. Below are some recommended DOs and DON'Ts for this patient encounter.

<table>
<thead>
<tr>
<th>DOs</th>
<th>DON'Ts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use the term prediabetes. Do not use the terms “borderline diabetes,” “marginal risk,” or say the sugar is “a little high.”</td>
<td>Don’t assume the patient understands the term “prediabetes.”</td>
</tr>
<tr>
<td>Ask the patient’s questions, concerns, and feelings.</td>
<td>Don’t assume you know how the patient is feeling.</td>
</tr>
<tr>
<td>Emphasize the importance of healthy lifestyle changes.</td>
<td>Don’t assume all patients will understand this message in the same way. Some patients feel “stigmatized” and experience increased stress, others have only “felt” and feel ashamed or shamed. Both of these reactions make it hard for a patient to listen and understand the importance of your message.</td>
</tr>
<tr>
<td>Do not hold the patient’s hand or “lead” the discussion.</td>
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</tr>
<tr>
<td>Encourage the patient to ask questions and make decisions.</td>
<td>Don’t tell the patient what to do.</td>
</tr>
<tr>
<td>Use motivational interviewing techniques to help the patient make lifestyle changes.</td>
<td>Don’t assume that the patient is ready to make these changes.</td>
</tr>
</tbody>
</table>

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<tr>
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<td>Don’t be a “diabetes doctor.”</td>
<td>Use the term prediabetes.</td>
</tr>
<tr>
<td>Don’t assume the patient understands the term “prediabetes.”</td>
<td>Ask the patient’s questions, concerns, and feelings.</td>
</tr>
<tr>
<td>Don’t assume the patient only wants to follow a diet.</td>
<td>Emphasize the importance of healthy lifestyle changes.</td>
</tr>
<tr>
<td>Don’t assume the patient is ready to make lifestyle changes.</td>
<td>Do not hold the patient’s hand or “lead” the discussion.</td>
</tr>
<tr>
<td>Don’t assume the patient is comfortable discussing their health.</td>
<td>Encourage the patient to ask questions and make decisions.</td>
</tr>
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<td>Don’t assume the patient is ready to make lifestyle changes.</td>
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</tbody>
</table>

**CARDIOVASCULAR DISEASE (CVD)**

- Heart disease
- High blood pressure
- High cholesterol
- Stroke

**METABOLIC SYNDROME**

- Increased waist circumference
- High triglycerides
- High blood pressure
- Fasting glucose levels

**HYPERTENSION**

- Blood pressure higher than 120/80 mm Hg

**HYPERTENSION AND DIABETES PANEL**

- Blood pressure higher than 120/80 mm Hg
- Fasting glucose levels

**LIPIDS**

- Total cholesterol
- HDL cholesterol
- Triglycerides

**DEPRESSION**

- Feelings of sadness, hopelessness, or worthlessness
- Loss of interest in activities
- Changes in appetite or sleep

**PHYSICAL FUNCTION**

- Difficulty walking or climbing stairs
- Limitations in daily activities
“So You Have Prediabetes… Now What?”

- Patient handout to help them understand what it means to have prediabetes.
- Make copies and provide to patients with prediabetes and/or if available, upload to your patient portal.
“What is the National DPP?”

What is the National Diabetes Prevention Program (National DPP)?

National DPP is a nationally recognized lifestyle change program that works, where you’ll learn, laugh, share stories, try new things, and build new healthy habits—while lowering your risk of type 2 diabetes and improving your health.

Key components of the program include:
- Lessons, handouts, and other resources to help you make healthy changes.
- A lifestyle coach, specially trained to lead the program, to help you learn new skills, encourage you to set and meet goals, and keep you motivated. The coach will also facilitate discussions and help make the program fun and engaging.
- A support group of people with similar goals and challenges. Together, you can share ideas, celebrate successes, and work to overcome obstacles. In some programs, the participants stay in touch with each other during the week. It may be easier to make changes when you’re working as a group than doing it on your own.

During the first half of the program, you will learn to:
- Eat healthy without giving up all the foods you love
- Add physical activity to your life, even if you don’t think you have time
- Deal with stress
- Copewith challenges that can derail your hard work—like how to choose healthy food when eating out
- Get back on track if you stray from your plan—because everyone slips now and then

In the second half of the program, you will enhance the skills you’ve learned so you can maintain the changes you’ve made. These sessions will review key ideas such as tracking your food and physical activity, setting goals, staying motivated, and overcoming barriers. You may learn some new information, too. The lifestyle coach and small group will continue to support you.

Program Time Commitments:
- The program runs for 1 year.
  - During the first 6 months of the program, you will meet about once a week.
  - During the second 6 months, you’ll meet once or twice a month.

You may think you learned enough in the first 6 months and can skip the second half of the program. But you’ll be cheating yourself!

Making Lifestyle changes is an ongoing process. Staying in the program for the full year is essential to help you stick to new habits and avoid slipping back into old habits. And if you have not reached your goals in the first half of the program, your lifestyle coach and other group members can help you succeed.

Program Costs:
The cost of participating in a CDC-recognized lifestyle change program varies, depending on location, organization offering it, and type of program (in person or online). Contact the program you’re interested in to find out the cost. Some employers and insurance carriers cover the cost of these programs. Check with your employer or insurance carrier to see if a program is covered.

For more information about the National Diabetes Prevention Program, visit: https://www.cdc.gov/diabetes/prevention/index.html

- Patient handout to help them learn about the National DPP and the time commitment.
- Make copies and provide to patients with prediabetes and/or if available, upload to your patient portal.
Step 4: Refer
Referral Form for the National Diabetes Prevention Program (National DPP)

1) Refer (paper or EHR)

2) The dietician/DPP facilitator will call patient to inform them of an informational session

3) At the informational session, the patient will have a chance to ask questions and sign up for class options if there are multiple classes available with differing locale/times.
Step 5: Follow up

- Arrange follow-up in 3-6 months
- May request that the DPP provide reports on patient progress
  - Ideally, dieticians may document in EHR
- Monitor your patient’s fasting glucose or hemoglobin A1C every 3-6 months.
Summary

- Consider implementing a DPP pilot program within your hospital system
- The SC DAC Toolkit is freely available to assist with implementation and education
- Please feel free to contact me personally with questions or comments at KaJohnson@TidelandsHealth.org
YMCA’S DIABETES PREVENTION PROGRAM
Healthy Living
Improving the Nation’s Health and Well-being

Critical Social Issues Affecting Our Communities:
• High rates of chronic disease and obesity (child and adult)
• Needs associated with an aging population
• Health inequities among people of different backgrounds

Our Shared Intent:
To improve lifestyle health and health outcomes in the U.S., the Y will help lead the transformation of health and health care from a system largely focused on treatment of illnesses to a collaborative community approach that elevates well-being, prevention and health maintenance.

Our Desired Outcomes:

- People achieve their personal health and well-being goals
- People reduce the common risk factors associated with chronic disease
- The healthy choice is the easy, accessible and affordable choice, especially in communities with the greatest health disparities
- Ys emphasize prevention for all people, whether they are healthy, at-risk or reclaiming their health
- Ys partner with the key stakeholders who influence health and well-being
Y Structure: ASSOCIATIONS & BRANCHES

OUR REACH

FACTS

YMCA
2,700

YMCA
in communities
where household income
is below the national average
58%

Communities served
10,000

States
50 plus
District of Columbia
and Puerto Rico
REACH IN SOUTH CAROLINA

SC Alliance of YMCAs
Diabetes Prevention Program
Patient Progress Report

Dear [Patient Name],

Your patient, [Patient Name] (DOB: [DOB]), is participating in the Diabetes Prevention Program available to your patients through the Summerville Family YMCA.

To date, [Patient Name] has attended 7 of the first 16 classes and has lost 10.8 lb(s), which is equivalent to a change in body weight by 6.2%. The program encourages people at risk for diabetes to make simple lifestyle changes through healthier eating and increasing physical activity to help prevent or delay the onset of diabetes. Participants in the program are working towards the goals of reducing body weight by 7% and increasing physical activity by 150 minutes per week.

Please continue to support your patients with prediabetes by referring them to the Diabetes Prevention Program available through the Summerville Family YMCA. We look forward to sharing your patient’s progress with you. Do not hesitate to contact me if you have any other questions.

Sincerely,

Amanda Metzger
amandam@summervilleymca.org
Summerville Family YMCA
140 S. Cedar Street
Summerville, SC 29483
COMMUNITY INTEGRATED HEALTH

- **Evidence-based Interventions**
  Ys are discovering, developing, and disseminating research-tested, high-fidelity health interventions to improve health.

- **Capacity Building**
  Y-USA is engaging Ys from the earliest stages to ensure they have the staff, competencies, and relationships necessary to implement evidence-based programs.

- **Compliance**
  Y-USA is helping YMCAs and other community-based organizations comply with privacy laws and health care regulations.

- **Health Equity**
  Y-USA infuses principles of equity into services to ensure everyone has the opportunity to live their healthiest lives, and that underserved populations have access to health-promoting resources.

- **Shared Physical Spaces**
  Ys are exploring the value of shared spaces with health practices, rehab and cancer centers, primary care within Y facilities, retail programming space with health care systems, clinical facilities at camps, and other health services.

- **Healthier Communities Initiative**
  Across 247 communities, Ys have used a collective impact model to implement policy, system, and environmental changes so that healthy choices are the easy choices for all.
  Building on this knowledge, Y-USA’s Talent and Knowledge Management department is testing new and advanced models of collaboration over the next three years.

- **Community Health Navigation**
  Ys help individuals develop the relationships necessary to manage health by conducting home visits, spreading awareness of recommended preventive services, and helping connect people to health care exchanges and marketplaces.
THANK YOU...questions?