

Prediabetes Prevalence and Diabetes Screening in Alabama, 2013

Presented by: Crystal Franklin, MPH
Epidemiologist

13th Annual Diabetes and Obesity Conference
November 21, 2014

Slides Prepared by: Emily Piercefield, MD, MPH
CDC Assignee to the Alabama Department of Public Health

Outline

- **Background**
- **Prediabetes in Alabama**
 - Prevalence
 - Risk factors
- **Reducing risk of progression to diabetes**
- **Diabetes screening in Alabama**
 - Prevalence
 - Barriers to screening



Background

- **29 million Americans have diabetes**
 - 12.3% of U.S. adult population
 - One in 4 remain undiagnosed

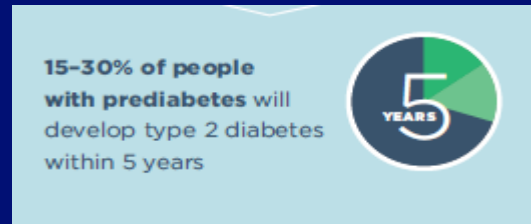
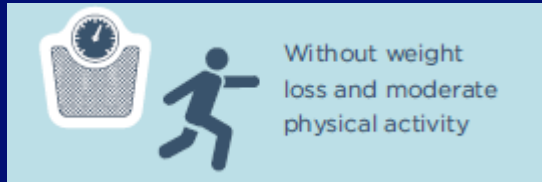


- **86 million U.S. adults have prediabetes**
 - 37% of U.S. adults
 - Only 11% are aware of having prediabetes



* Centers for Disease Control and Prevention. National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2014. Atlanta, GA: U.S. Department of Health and Human Services; 2014.

Consequences



- **Diabetes: 7th leading cause of death**
- **Causes heart disease, stroke, blindness, kidney failure, and lower leg amputations**
- **Early detection and treatment of prediabetes:**
 - Prevents or delays progression to diabetes
 - Reduces health complications



* Centers for Disease Control and Prevention. National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2014. Atlanta, GA: U.S. Department of Health and Human Services; 2014.

Question

- What is the prevalence of prediabetes in Alabama?
- What are the characteristics related to having prediabetes?



Data Source

- **Behavioral Risk Factor Surveillance Survey (BRFSS)**
 - Nationwide annual telephone survey
 - Collects self-reported health and health risk data
 - >100,000 U.S. participants
 - >6,000 in Alabama
 - Provides state-level estimates of disease conditions and health behaviors



Results

- An estimated **255,000** Alabama adults **report** having prediabetes
 - 8.5% of adult population
- But most people with prediabetes don't know it to report it
- Best case: apply US national rate (37%)
 - At least **1.3 million** Alabama adults actually **have** prediabetes
- Worst case: if only 11% of people with prediabetes are aware of having it, then
 - As many as **2.3 million** Alabama adults actually **have** prediabetes

Characteristics of Persons Self-reporting Prediabetes— Alabama, 2013

Factor	%
Age \geq 55 years	47.4
Female	57.0
White	72.3
Annual household income $<$ \$25,000	42.9
Body mass index (BMI) \geq 25	82.6
Physical activity guidelines met	9.8

Adjusted Odds for Prediabetes by Risk Factors— Alabama, 2013

Factor	Increased Odds
Age ≥ 55 years	3.4
Female	1.3
Body mass index (BMI) ≥ 25	2.4
Physical activity guidelines NOT met	1.5



Modifiable Risk Factors for Prediabetes

- Cannot control your age
- Cannot change your gender
- Can reduce your weight
- Can improve your exercise habits



If you have prediabetes, losing weight by:



EATING HEALTHY & BEING MORE ACTIVE

can cut your risk of getting type 2 diabetes in

HALF



Reducing Diabetes Risk

- **Even modest reduction in weight decreases diabetes risk**
 - 5–7% weight loss
 - 10–15 pounds
- **Recommended physical activity:**
 - 150 minutes per week of moderate to vigorous aerobic activity
 - Plus, muscle strengthening exercise twice per week
- **As little as 5-15 minutes per day has shown benefit**



How to Get There

- **USPSTF and Community Guide recommend lifestyle modification courses**
- **Particularly successful if regular contact with a health mentor**
- **Multicomponent services: dietician, nutritionist, exercise trainer, behavioral counselor, health educator, trained layperson**



- ✓ eat healthy
- ✓ be more active
- ✓ lose weight

JOIN A CDC-
RECOGNIZED
diabetes
prevention
program



National Diabetes Prevention Program

- **Collaborative effort hosted at CDC**
- **Standard curriculum**
 - Based on behavior change principles
- **Cost effective intervention**
- **Covered by some healthcare insurers**
- **Lifestyle Coach training available**
- **Recognition program to certify organizations**

More information:

www.cdc.gov/diabetes/prevention

Diabetes Screening

- So why do so many people NOT know they have prediabetes or diabetes?
- Are they being screened for it?
- If you don't know you have it, you can't fix it!



Diabetes Screening Recommendations

- **ADA recommends screening:**
 - Age ≥ 45
 - Overweight or obese with one other risk factor*
- **New USPSTF draft recommendation for diabetes screening:**
 - Age ≥ 45
 - Overweight or obese
 - First-degree relative with DM
 - Certain minority groups
 - Including African American, Hispanic/Latino, American Indians
 - Women with :
 - history of gestational diabetes
 - polycystic ovarian syndrome
- **Screen every 3 years**
 - Annual if higher risk or previously elevated values

*Additional risk factors include: racial/ethnic minority, hypertension, low LDL, high triglyceride, history of cardiovascular disease, gestational diabetes or insulin resistance, first degree relative with diabetes, physical inactivity, delivery of baby >9 lb

Self-reported Testing for Diabetes

- **Nearly half (46.5%) of nondiabetic Alabama adults report NOT tested for diabetes <3 years**
 - Includes 1 in 3 people aged ≥ 45 years
- **Many lacking diabetes screening have other medical conditions increasing risk**
 - 23.7% have high blood pressure
 - 33.8% have elevated cholesterol



Personal Risk Factors for Lacking Diabetes Screening

Factor	Prevalence Ratio
Male	1.1
African American	1.1
Less than high school education	1.2
Annual household income <\$25,000	1.2
Normal or underweight	1.2



Health System-related Factors for Lacking Diabetes Screening

Factor	Prevalence Ratio
No health insurance	1.6
Gap in health insurance coverage	1.4
Perceived cost barriers to care	1.3
Lacks identified personal health provider	1.7
No medical checkup <5 years	1.9

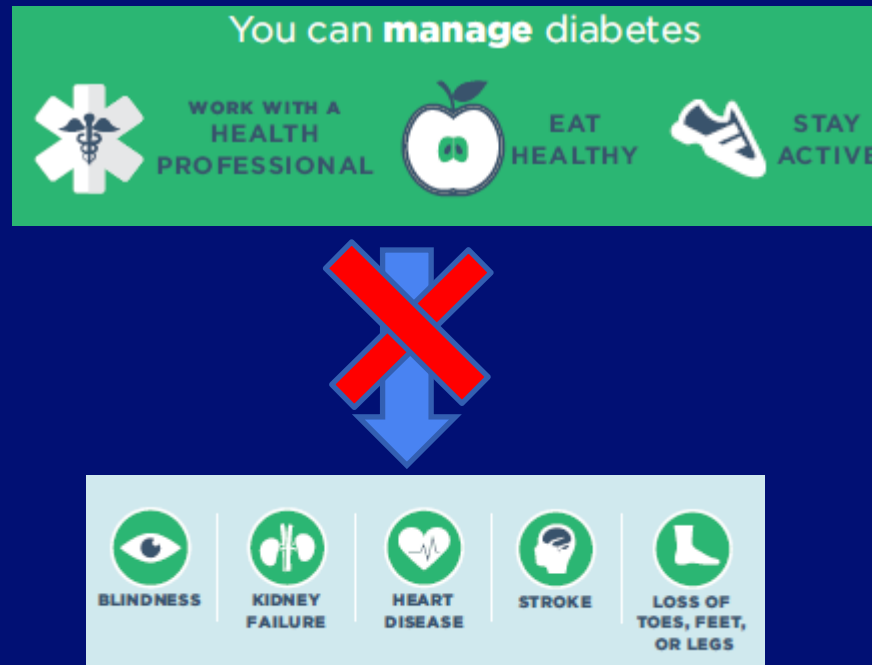
Barriers to Diabetes Screening

- **Financial barriers to health care access**
 - Lack of health insurance
 - Recent gap in coverage
 - Perceived cost barriers
- **Inadequate patient engagement in health care systems**
 - No recent general medical checkup
 - No identified personal health-care provider



Consequences

- Missed opportunity for early detection and treatment
- Earlier care reduces health complications and costs



Possible Solutions

- Increased awareness of diabetes and prediabetes
- Improved access to health insurance
- Patient-centered wellness homes



Summary

- **Many Alabama adults not aware of prediabetes status**
- **Progression to diabetes reduced with lifestyle changes**
 - Weight loss and physical activity are key
 - Lifestyle change programs proven effective
- **Nearly half Alabama adults report no diabetes screening <3 yrs**
 - Barriers to health care access or lack engagement in health systems
 - Early detection and treatment reduces complications and costs



Thank you!

Contact Information:

Crystal Franklin

Telephone: 334-206-3001

Email: crystal.franklin@adph.state.al.us

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.